



Eighth International Heat Transfer Conference

Fairmont Hotel • San Francisco, U.S.A.
August 17-22, 1986

1986 Conference Executive Committee

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U.S. Scientific Committee

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R. K. SHAH, General Motors Co.
K. H. SUN, Electric Power Res. Instit.

1986 Conference Organizing Committee

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J. R. ZIOLKO, Bechtel National

Exhibits Subcommittee

R. K. SHAH, General Motors Co.
K. J. BELL, Oklahoma State Univ.

Short Course Subcommittee

A. D. KRAUS, Naval Postgraduate School
A. E. BERGLES, Iowa State Univ.

A REVIEW OF THE EIGHTH INTERNATIONAL HEAT TRANSFER CONFERENCE

PRESENTATION TO THE ASSEMBLY FOR INTERNATIONAL HEAT TRANSFER CONFERENCES

ROSS PRIORY, LOCH LOMOND, GLASGOW SCOTLAND
GREAT BRITAIN

SEPTEMBER, 1988

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Assembly for International Heat Transfer Conference

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A. D. KRAUS, Naval Postgraduate School
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September 15, 1988

TO: The Members of the Assembly for
International Heat Transfer Conferences

I am pleased to submit to you this final report of the Executive Committee for the Eighth International Heat Transfer Conference, held in the Fairmont Hotel, San Francisco, California, U. S. A. in August, 1986.

Sincerely yours,

R. J. Goldstein
Conference Chairman

RJG/clp
Enclosure

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Remarks by the Conference Chairman

The Eighth International Heat Transfer Conference and Exhibition was held in the Fairmont Hotel, San Francisco, California, 17-22 August 1986. A list of many of those who contributed to the success of the conference is shown on the cover page of this report.

The major success of the conference can be gauged in the technical presentations. There were 450 general papers and 20 topic specific sessions. Two invited lectures were presented at the plenary session and 28 keynote lectures were given during the conference. There were two panel sessions, six round-table sessions, three video and film forums, and three open sessions of 60 poster presentations.

All of the contributed general papers were presented in poster format. The conference proceedings, including the invited and contributed papers, were published in six conference volumes plus one abstract volume and distributed to all those that paid the regular registration fee (\$200 advance, \$245 on site). Hard-bound copies of these proceedings are now on sale, priced significantly higher than the registration fee. The total attendance at the conference and exhibition was over 1,500, distributed according to registration category and geographic location as follows:

Attendance According to Registration Status

894	paid conference attendees
149	exhibit only attendees
311	student registration/spouse social function
18	speakers, invited dignitaries, and other
	non paying invitees
26	student aides
42	ticket-only sales (non-registered)
1,440	sub-total
110	exhibitors
1,550	TOTAL ATTENDEES

Attendance According to Geographic Location

U. S. Participation

42 States and the D.C.

<u>State</u>	<u># of Attendees</u>
California	316
New York	44
Pennsylvania	43
Ohio	39
Illinois	35
Minnesota	33
Texas	29
Michigan	29
Massachusetts	22
New Jersey	20
Wisconsin	17
Iowa	14
Colorado	14
Arizona	13
New Mexico	13
Virginia	12
Indiana	12
Tennessee	10
Missouri	9
Connecticut	7
Idaho	7
North Carolina	7
Delaware	6
Maryland	6
Oklahoma	6
South Carolina	6
Washington	6
District of Columbia	5
Louisiana	5
Kansas	4
Kentucky	4
Oregon	3
Utah	3
West Virginia	3
Alabama	2
Hawaii	2
Maine	2
Mississippi	2
Rhode Island	2
Florida	1
Georgia	1
North Dakota	1
South Dakota	1
	<u>816 attendees</u>
	56.7%

Foreign Participation

40 Foreign Countries

<u>Country</u>	<u># of Attendess</u>
Japan	98
France	81
West Germany	79
Canada	76
England	64
Israel	39
Italy	35
China	22
U.S.S.R.	21
Netherlands	13
Yugoslavia	9
Scotland	8
Switzerland	8
Australia	6
India	5
Sweden	5
Mexico	4
Korea	4
Brazil	4
Austria	4
Poland	4
Norway	3
Venezuela	3
Kuwait	3
Hungary	3
Taiwan	3
Finland	3
Saudi Arabia	3
Turkey	2
Ireland	2
Philippines	2
Portugal	1
Wales	1
Czechoslovakia	1
Chile	1
Belgium	1
New Zealand	1
Argentina	1
Micronesia	1
	<u>624 attendees</u>
	43.3%

In addition to the many Universities represented, there were attendees representing 272 companies, corporations and organizations, 86 of which were non-U.S.

Seven short courses were presented, with a total paid attendance of 166. These covered subjects of numerical solutions of heat transfer and fluid flow; compact heat exchangers; augmentation of heat transfer; advances in thermal analysis and control of electronic equipment; heat transfer in packed, and fluidized beds; fundamentals and recent developments in heat pipes; and experimental methods in heat transfer.

The exhibition was considered a success by both the exhibitors and attendees. There were 34 exhibitors covering a variety of fields from publishers to manufacturers of heat exchange equipment.

A number of social functions and tours was available to attendees and their accompanying guests. These include receptions, a boat trip and Wednesday afternoon tours.

The income and expenses for the Conference nearly balanced. There was a loss incurred by the general coffers of ASME of about \$1700 but also a \$2700 surcharge to the Heat Transfer Division of ASME. The net of these two, then, is a small profit by the Conference of \$1000. In addition the Short Course Program had a net profit of \$15,300 and the Exhibit had a new loss of \$2480.

To those who helped with the organization and operation of the Conference, the Executive Committee and I thank you most sincerely. Your concerted effort in writing the papers, reviewing abstracts, providing communication between authors and reviewers, reviewing papers and coordinating the technical and social aspects of the Conference has made this conference a success.

We eagerly await the next International Heat Transfer Conference in Jerusalem, Israel in 1990 and join the many others in the international heat transfer community in offering a helping hand to make this upcoming Conference a success as well.

Report of the Chairman of Scientific Committee

General

The scientific program of the Eighth International Heat Transfer Conference covered both fundamental and applied aspects in heat transfer, and was organized under the direction of the International Scientific Committee (see Attachment A) and the U. S. Scientific Committee (see Attachment B). The major elements of the program included poster presentations of 450 general papers in 20 topic-specific sessions, 2 invited plenary lectures of historical interest, 28 invited keynote lectures on a wide spectrum of subjects, 2 panel sessions, 6 round-table sessions, 3 video and film forums, and 3 open sessions of 60 poster presentations. The official language of the Conference was English and all presentations were made in English. The use of SI units was mandatory, and the nomenclature conformed to the list prepared specifically for the Conference.

All the general papers and the invited plenary and keynote papers were published in the Proceedings of the Conference, which consisted of one abstract volume and six volumes of text. The list of nomenclature was placed at the beginning of each of the volumes. The Proceedings were edited by C. L. Tien, V. P. Carey and J. K. Ferrell and were published by the Hemisphere Publishing Corporation, Washington, D. C. They were made available shortly before and at the Conference. The key dates for structuring the program and publishing the Proceedings are listed in Attachment C along with those of the earlier Conferences.

The format and the quality of the scientific program had excellent and enthusiastic response from the participants. The planning and execution of the program ran smoothly without any major mishaps.

General Papers

The purpose of the general papers was to report original, unpublished findings in heat transfer. All the general papers were reviewed under the direction of the International Scientific Committee. The distribution of the general papers according to the member countries responsible for their reviews, along with those of earlier Conferences is shown in Attachment D-1. The distribution of papers in the Proceedings according to nationality of the first authors, and all authors, is given as Attachment D-2. The Call for Papers (Attachment E) was widely distributed and published in many heat transfer journals. Most countries submitted a much larger number of abstracts and papers than allocated. For instance, in the U.S.A. there were about 340 abstracts submitted, from which 260 were invited to submit full manuscripts. Out of 210 manuscripts received for review, 150 were finally accepted for the Conference. The quality of the scientific program benefited from this highly selective process for general papers.

All the general papers were presented in poster format and authors were required to present their papers personally. Out of 450 general papers, only 38 (U.S.A.-8, India-7, Poland-5, U.S.S.R.-3, UK-2, etc.) were missing in the poster sessions. Detailed instructions were given to the authors for preparing posters (Attachment H), and the three best-prepared posters in each session were awarded each with a bottle of California wine. The quality of the posters was generally high and, as a result, good discussion ensued between authors and participants.

Invited Plenary and Keynote Lectures

Two invited plenary lectures of historical interest were presented in the opening session, while 28 invited keynote lectures were offered by internationally recognized leaders representing 13 countries including, for the first time, Argentina, Australia and China. The titles and authors of the invited papers were listed in the final Conference Program. All invited lectures were delivered by the authors personally and were well received. The attendance of the keynote papers sessions ranged from 400 to 50.

Panel and Round-Table Sessions

Two panel sessions were organized, one focusing on material processing and manufacturing and one on process heat transfer. The call is shown as Attachment E-3. Each panel had 5 panel members including the Chairman and was coordinated with 2 or 3 related Round-Table Discussion sessions. These sessions were intended to promote informal and uninhibited exchange of information; therefore, the presentations and the discussions were not recorded, nor published.

Video and Film Sessions

For the first time in the International Heat Transfer Conferences, a video forum was presented. The call is shown as Attachment E-4. Available to check out for viewing were 18 videos on a wide range of subjects contributed by authors from many different countries. A film forum consisting of 8 interesting films was also conducted. The video and film sessions covered two full days, Tuesday and Thursday, of the Conference. The titles and the authors were listed in the final Conference Program. These sessions were very successfully organized and operated, and were well received by the Conference participants.

Open Poster Sessions

Three open sessions of 60 poster papers were held on Thursday afternoon and provided a forum for authors to present recent work which was not complete in time to meet the general-paper deadlines. The Call for Papers in the Open Poster Sessions is shown as Attachment E-2 and the final list of open poster papers is shown as Attachment F. Authors were required to prepare and present their poster papers according to the same instructions for the general poster papers. The result was a resounding success for the sessions.

Report of the Chairman of the Organizing Committee

The responsibilities of the Organizing Committee were to (1) coordinate all activities with the hotel staff including proper room selection and appropriate traffic flow during the various events of the week, to (2) organize the social activities including receptions, Conference dinner and many outings; and, to (3) plan for the convenience of attendees including hotel accommodations, parking, maps, restaurants, travel, mailing of proceedings volumes, etc.

The Committee consisted of very dedicated individuals representing the local chapters of ASME and AIChE and nearby Universities and Industrial Organizations. The wife of one of the Committee members participated and represented the spouses' interests. The Committee was formed four years prior to the Conference and immediately began to reserve meeting room space and make plans for the special events (tours, receptions, etc). Meetings were held semi-annually to review progress and discuss questions which arose. Careful minutes of all meetings were taken and action items were clearly stated along with an assignment of the persons responsible for each item. Most of the Committee meetings were attended also by a representative of ASME, a member of the Executive Committee and the Chairman of the Scientific Committee.

As the Conference approached, the many positions to be staffed were identified and a person for each position was assigned. These persons were from the ASME staff, local professional staff (convection bureau, etc.), members of the Organizing Committee, local Society members and their spouses and students from Stanford University and from the University of California at Berkeley. The students served as session aides and assisted in distribution of the papers. Each person was given specific written instructions and schedules. Audio-visual equipment was carefully checked prior to the meeting and back-up equipment was available.

The Committee also had responsibility for the selection and procurement of gifts, mementos and perks. Each attendee received a Conference bag and a Conference pen. Invited speakers and other major contributors were given Conference desk pen sets.

The main social events were a Conference reception at the splendid Palace of the Legion of Honor and a Conference dinner aboard the "City of San Francisco," a sightseeing boat which toured the San Francisco Bay and Golden Gate Bridge at sunset and early evening. These and the other social events went smoothly and the weather was San Francisco August weather at its best -- a pleasant mix of occasional morning and evening fog with several bright sunny days.

Though the layout of the older Fairmont Hotel required that the technical sessions; keynotes, posters, videos and exhibitions be distributed among several floors, the traffic seemed to flow without difficulty. In fact many informal discussions began as colleagues passed between events. These were facilitated by having ample discussion space with free coffee, including a large room which was used by the Hotel as a cocktail room in the evening but was available during the day for discussion. Though the exhibitors' room was separate from the poster presentation room, it was on the way from the keynote session area to the poster area and, thus, was sufficiently visible to have many visitors.

A spouses room was available where the spouses could meet and plan the day's activities. Refreshments were served. There was an extensive tour program. Tours were scheduled each day to give the attendees an appreciation of the highlights of San Francisco and the surrounding attractions. This included tours of the wine country, Carmel and the Monterey Aquarium.

Wednesday afternoon was free for a variety of scenic tours and technical tours. The technical tours included a visit to the Geysers Geothermal Power

Field, followed by a dinner at a winery and visits to the University of California at Berkeley and to Stanford University. In fact, several of the more popular tours were sold out and standby lists were utilized.

In summary, the extensive planning of the Organizing Committee with the objectives of efficiently using the facilities, providing a comfortable and enjoyable setting and giving the attendees a flavor of San Francisco's many attractions was rewarded manyfold. A productive technical exchange and an enjoyable week among friends in the international heat transfer community was had by all.

Some of the lessons learned and guidance for future organizing committees include:

- . Early budget identification
- . Careful planning
- . A diversified and dedicated committee representing university, research organizations and industry
- . Clear assignment of responsibilities
- . Complete minutes of meetings
- . Contingency Planning
 - overbooked tours
 - underbooked tours
 - malfunctioning audio-visual equipment
 - room capacity (handle overflow)
- . Consider spouses interests
- . Allow ample space for informal discussions
- . Provide adequate student aid to help in meeting; setting up posters, distribution of documents, etc.

Report on Publications

The following report was prepared by Florence Padgett of Hemisphere Publishing Corporation and was submitted in September 1988.

For the Eighth International Heat Transfer Conference in San Francisco, Hemisphere published 1200 sets of the 6-volume softcover edition of the proceedings and 1200 softcover copies of the abstracts volume for Conference registrants. In addition, Hemisphere published a hardcover, completely indexed library edition.

Hemisphere has promoted sales of Heat Transfer 1986 through extensive direct mail promotion, display at a conference such as the National Heat Transfer Conference and the American Society of Mechanical Engineers Winter Annual Meeting, sending sets to book reviewers at relevant professional journals, and placing space ads in appropriate journals. Sales to date have been approximately 350 sets. (This figure includes Springer-Verlag sales. Hemisphere distributed the proceedings in North America; and Springer-Verlag, throughout the rest of the world.)

In order to assure the copies of the proceedings are available to registrants prior to the Conference, it is necessary to set and maintain a firm schedule. Aiming for a publication date of July 1, 1990, for Heat Transfer 1990, Hemisphere should receive the complete final manuscript from the proceedings editor by February 15, 1990. This 20-week schedule allows us to survey the entire manuscript and follow up any queries; apply to Library of Congress for CIP data; typeset, proofread, and correct front matter; design and typeset the cover; print and bind all volumes; and ship to registrants to reach them before the Conference. The editor of the proceedings should set a schedule for acceptance and delivery of camera-ready papers to assure that the complete manuscript is delivered to Hemisphere by February 15, 1990.



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28 October 1985

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Ms. Florence Padgett
Senior Acquisitions Editor
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79 Madison Avenue
New York, NY 10017

RE: Eighth International Heat Transfer Conference
August 17-22, 1986
San Francisco, CA

Dear Florence:

The Conference Executive Committee is pleased to officially confirm Hemisphere Publishing Corporation's appointment as the printer and publisher of the Conference Proceedings. This confirmation is based upon Hemisphere's acceptance of the following terms:

- o The complete conference proceedings will consist of the following volumes:

- One (1) abstract volume
- Six (6) Conference proceedings volumes
- One (1) Discussion/panel session volume

- o All papers, tables of contents and other front matter will be provided to Hemisphere on or about March 1, 1986.

- o Hemisphere will provide the mats to be sent to all authors along with instructions for typing the mats and sample papers to show how the typed page should look. Mats and instructions will be sent to the committee for further distribution to the authors.

- o The Scientific Committee will be responsible for getting a signed copyright from the senior author of each paper.

- o The Conference Executive Committee will receive 1200 gratuitous copies of each volume. This paperback version will be given to all conference attendees and not sold by conference. Hemisphere will receive exclusive right to publicize the hard-back version of the proceedings. All charges noted in previous correspondence are eliminated. Specifically, the \$5,000.00 surcharge required for an additional 200 sets of the conference proceedings and the elimination of all charges for the abstract volume.

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Assembly for International Heat Transfer Conference

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Florence Padgett
Page 2
28 October 1985

- o Should the Conference Committee require more than 1200 sets of the proceedings, they will receive them at a cost of \$2,000 per additional 100 sets. It should also be noted that the conference committee might require less than 1200 copies of the proceedings. On May 1, 1986 the conference planning committee must provide Hemisphere with the exact number of sets required.
- o Authors who preorder reprints will have 50 copies of the article free of charge.
- o Hemisphere Publishing Corporation will ship a copy of the abstract and proceedings to any individual who request to receive one via the postal system. Hemisphere's reimbursement for postal expense will be based upon the following schedule:

<u>Method of Shipment</u>	<u>Volume Proceedings</u>	<u>Discussions</u>	<u>Abstracts</u>
U.S. Fourth-class book rate	\$ 7.50	\$ 1.75	\$ 2.00
Foreign Surface Mail	\$ 37.00	\$ 3.50	\$ 4.00
Foreign Air Parcel Post	\$140.00	\$14.00	\$15.00

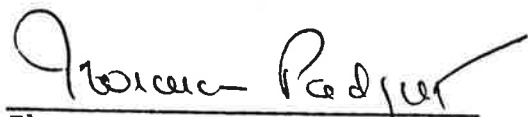
The Discussion Volume will be mailed by Hemisphere to all registrants after the conference.

- o In order to facilitate their handling at the conference, the conference proceedings will be delivered to the conference pre-packaged in a set for mailing. ASME will cover the cost of Transportation from Hemisphere's bindery to the conference. The publications should be shipped via ground transportation to arrive in a timely manner in advance of the conference.
- o The Assembly for IHTC will receive 10% of the list price on all sales of over 300 copies of the hardback version of the proceedings.

The above terms are simply a summary of the items previously agreed to by Hemisphere and the Conference Committee. If everything meets your approval, please sign and return a copy of this letter to me.

Sincerely yours,

R.J. Goldstein
Chairman
Conference Executive Committee



Florence Padgett
Senior Acquisitions Editor
Hemisphere Publishing Corporation

Report on Finances

The following review from ASME documents the financial record of the Conference.

<u>1986 Heat Transfer Conference & Exhibit Expenses</u>	<u>Budgeted</u>	<u>Actual</u>
<u>Printing</u>		
Call for papers	7,500.00	3,382.86
Priliminary Program	23,000.00	6,127.62
Final Program	6,250.00	9,201.13
Final Announcement		4,018.17
Sheridan - Reg. Forms	500.00	442.40
Convention Bureau Brochures		510.00
Computag-Badges	1,500.00	2,633.25
Gifts	15,000.00	21,334.28
Author Mailing & Postage		3,973.12
Program Cover		350.00
Holiday Inn-HT Conf Plng Mtg		73.53
Fairmont Hotel - Coffee Break		37,775.33
Federal Express		335.01
Ribbons, supplies, reproductions		337.60
Goodyear printing		992.09
Tickets		476.00
Shipping	2,500.00	666.06
NARSAI'S Catering	55,937.00	34,203.59
Photographer		335.00
Souverain Rest.		2,389.84
Personnel		4,580.00
AM Travel		750.00
Decorator	7,500.00	14,929.32
Galavents		11,156.73
Labels		327.74
J. Nelsons Prod.		1,750.00
CalPalace Legn.		4,000.00
P. Santella-Expense		500.00
V. Gustafsson - Prep. of Minutes		255.50
Hornblower Yacht		13,193.70
Franciscan Bus Lines		4,791.94
Heat Transfer Division Surcharge		2,704.20
Sub Total		188,496.01
Hemispher Publishing		8,428.10
	Total Expenses	196,924.11
Staff Time & Travel		17,500.00
	Total	214,424.11

IncomeRegistration Income - ON SITE

Full Fee	279	x	\$225.00	=	62,775.00
Advance Fee	6	x	200.00	=	1,200.00
One Day	3	x	100.00	=	300.00
Student	98	x	30.00	=	2,940.00
Spouse	56	x	30.00	=	1,680.00
Keynote	10	x	n/c	=	00.00
Press	3	x	n/c	=	00.00
Exhibitor	122	x	n/c	=	00.00
Exhibitor Only	140	x	n/c	=	00.00
	<u>717</u>				<u>68,895.00</u>

Registration Income - Advance

Full Fee	596	x	200.00	=	119,200.00
Full Fee	1	x	225.00	=	225.00
Students/Spouses	163	x	30.00	=	4,890.00
Invited Lecturers	15	x	n/c	=	0.00
	<u>775</u>				<u>124,315.00</u>

Total Advance & On-Site					193,210.00
Total Paid Registrants	885				
Total Registrants	1492				
Budgeted Registrants	900				

Ticket Income

Conference Dinner	170	x	35	=	5,950.00
Rosenhow Dinner	52	x	35	=	1,820.00
Tours/Postage					<u>11,715.00</u>
					<u>19,485.00</u>

Total Expenses					214,424.11
Total Income					<u>212,695.00</u>
Net Loss					<u>1,729.11</u>

Exhibition Report

Overview

This report provides a detailed breakdown of:

- . exhibitor and booth related information
- . revenue and expenses
- . attendance and demographic information
- . audience profile recap

Items highlighted below cover 1986 exhibit promotion, 1986 attendance, 1986 list development and exhibition growth.

Exhibit Promotion

Substantial efforts were made to promote attendance at the 1986 exhibition. A total of 10,000 complimentary passes and 12,000 exhibit directories were mailed, first class, to ASME members in the western regions of the United States with a major concentration in the state of California. An additional 3,000 complimentary passes were issued to exhibitors to distribute to their own clients.

The Conference Advance Program contained 3/4 of a page devoted to the exhibit. It included a general overview, a listing of former exhibitors, and an interest coupon. Of the 27,000 Advance Programs distributed, 16,000 copies were mailed to the ASME Heat Transfer Division and 1,200 to the AIChE Heat Transfer Division. The foreign mailings were sent to individual country coordinators who were responsible for distribution to individuals and consisted of Europe (included 20 countries) 6,850; Canada: 750; Federal Republic of Germany: 2,200.

Two full pages in the Final Program were devoted to the Exhibit, listing the dates/times of the exhibition and a sampling of exhibitors. A total of 4,000 Final Programs were printed with approximately 1,500 mailed to individuals requesting same.

Attendance

'Exhibit only' attendance accounted for 14.3% of the primary audience. Most importantly, 'exhibit only' attendance contributed 52% of the total industry participation. Of the 272 participating companies/corporations/organizations (not including university/college participation) 'exhibit only' attendees represented 29 foreign and 112 U.S. companies/corporations:

Industry Participation

<u>EXHIBIT ONLY</u> (141 companies)	<u>CONFERENCE RELATED</u>	
	<u>Advance</u>	<u>On-site</u>
29 foreign	52 foreign	5 foreign
112 U.S.	62 U.S.	12 U.S.

List Development

Additions to our list of prospective/qualified exhibitors were culled from the following areas: heat transfer exchange manufacturers, Society of Metals, responses received from interest coupons. Our list development, prior to these additions, was based on contacts taken from an ASHRAE exhibition, the American Power Conference, the Chemical Show and HTRI. Further list development, through prospecting and volunteer input, should be ongoing and is necessary in order to expand this exhibition.

Exhibition Growth

Repeat clients are extremely important to the growth of any exhibition. In 1986, 29% of the exhibiting companies were customers who had participated in the 1984 National Heat Transfer Exhibition (Niagara Falls, NY). In order to provide a basis for future success, this percentage must be increased. Continuity will certainly help; however, additional ways to accomplish growth must be employed. Suggestions on exhibition organization are given in Attachment G.

EXHIBITOR AND BOOTH INFORMATIONEXHIBITORS

Paid Exhibitors 34 companies ^a
 Comp. Exhibitors (ASME). 1 company
 Total number of Companies. 35

Repeat exhibitors

10 companies, which represents 29% of the exhibitors, were repeat customers^b

New exhibitors

24 companies, which represents 71% of the exhibitors, were new customers^b

BOOTHS

Booths occupied by paid exhibitors 37
 Booths occupied by company exhibitors 1
 Total number of booths occupied. 38

3 companies, or 9% of the exhibitors, purchased more than one booth^c

SQUARE FOOTAGE INFORMATION^d

Total net square footage used 2,940 sq ft.
 Average income per net sq foot \$11.42
 (based on paid space of 2,865 and income from 34 companies)
 Total gross square footage used 4,923 sq ft.

CANCELLATIONS

3 companies, which represent 9%, cancelled their participation in this exhibition after definitely confirming. These companies are as listed: Thomas C. Wilson, Inc., Schmidt Bretton, Inc. and Powerfeet, Inc.

^a see Addendum "a"
^b see Addendum "b"
^c see Addendum "c"
^d see Addendum "d"

ADDENDUM "a"

8TH INTERNATIONAL HEAT TRANSFER EXHIBITION
FAIRMONT HOTEL, SAN FRANCISCO
AUGUST 17-20, 1986

LIST OF PAID EXHIBITORS

American Institute of Aeronautics & Astronautics (AIAA)
Ametek
Astro Metallurgical
B-JAC Computer Services, Inc.
Cal Gavin Ltd.
Computational Mechanics
Dantec Electronics, Inc.
Dean Pump Division
Dickow Pumps Company
Dow Corning Corporation
E C W, Inc.
GEA International
Graham Manufacturing Company Inc.
Hamon Power Services, Inc.
Heat Exchanger Performance Company
Heat Transfer Consultants, Inc.
Heat Transfer & Fluid Flow Service
Heat Transfer Research, Inc.
Hemisphere Publishing Corporation
Heresite Protective Coatings
High Performance Tube, Inc.
Hudson Products Corporation
ICI Americas Inc.
Konus Systems Company
Lummus Heat Transfer Systems, B. V.
Monsanto Company
E. L. Nickell Company, Inc.
Pergamon Press, Inc.
Springer-Verlag New York, Inc.
Sundstrand Fluid Handling
TFC Technologies, Inc.
Vapor Corporation
Ventuno Press
John Wiley & Sons, Inc.

34 Companies occupying 37 booths

ADDENDUM "b"

REPEAT AND NEW EXHIBITORS - BREAKDOWNREPEAT EXHIBITORS (Companies that participated in the 1984 exhibition)

B-JAC Computer Services, Inc.
Dantec Electronics, Inc.
Dean Pump Division
Dow Corning Corporation
Graham Manufacturing Company, Inc.
Heat Transfer & Fluid Flow Service
Hemishpere Publishing Corporation
Monsanto Company
Springer-Verlag New York, Inc.
John Wiley & Sons, Inc.

. . . 10 companies or 29 % of exhibitors were repeat clients

NEW EXHIBITORS

American Institute of Aeronautics & Astronautics (AIAA)
Ametek
Astro Metallurgical
Cal Gavin Ltd.
Computational Mechanics
Dickow Pumps Company
E C W, Inc.
GEA International
Hamon Power Services, Inc.
Heat Exchanger Performance Company
Heat Transfer Consultants, Inc.
Heat Transfer Research, Inc.
Heresite Protective Coatings
High Performance Tube, Inc.
Hudson Products Corporation
ICI Americas Inc.
Konus Systems Company
Lummus Heat Transfer Systems, B. V.
E. L. Nickell Company, Inc.
Pergamon Press, Inc.
Sundstrand Fluid Handling
TFC Technologies, Inc.
Vapor Corporation
Ventuno Press

. . . 24 companiew or 71% of exhibitors were new to the 1986 exhibition

ADDENDUM "c"

COMPANIES THAT CONTRACTED FOR MORE THAN ONE (1) BOOTH

Hamon Power Services 2 booths
 Heat Transfer & Fluid Flow Service . . . 2 booths
 Hemisphere Publishing Corporation. . . . 3 booths

NOTE

3 companies (9% of the companies represented) Produced 19% of the exhibit booths

One of the ways to expand an exhibition is to increase the number of booth sales per company.

ADDENDUM "d"

DETAILED SQUARE FOOTAGE INFORMATIONPaid Exhibitors

<u>Booths</u>		<u>Size</u>		<u>Square footage</u>
34	x	7'6" x 10'	=	2,550.00
2	x	8'0" x 10'	=	160.00
1	x	13'6" x 11'6"	=	155.25
37 booths			Sub total	2,865.25

Complimentary Exhibitors

<u>Booths</u>		<u>Size</u>		<u>Square footage</u>
1	x	7'6" x 10'	=	75.00
38			TOTAL NET sq. ft	2,940.25

ADDENDUM "e"

INCOME AND EXPENSES

Total booth income 32,720.00

34 booths x 865	=	29,410.00
2 booths x 900	=	1,800.00
1 booth x 1,510	=	1,510.00
37 paid booths		32,720.00

Exhibit Expenses 35,200.00

Direct	19,600.00
Salary	13,200.00
Travel/On-Site Sup	<u>2,400.00</u>
	25,200.00

Net Revenue (2,480.00)

Report on Short Courses

The following information documents the Professional Development's short course offerings:

Numerical Solution of Heat Transfer and Fluid Flow Instructor: Dr. Suhas V. Patankar Guest Lecturer: Prof. D. B. Spalding	<u>Attendance</u> 22
Compact Heat Exchangers Instructors: Dr. Ramesh K. Shah Prof. A. Louis London Guest Lecturer: James Robertson	24
Augmentation of Heat Transfer Instructors: Dr. Arthur E. Bergles, Dr. Ralph L. Webb Guest Lecturer: Dr. Wataru Nakayama	9
Advances In Thermal Analysis and Control of Electronic Equipment Instructors: Dr. Avram Bar-Cohen, Dr. Allan D. Kraus Guest Lecturer: J. P. Baron	28
Heat Transfer in Packed, Agitated and Fluidized Beds Instructors: Dr. Ernest-Ulrich Schlunder, Dr. Holger Martin Guest Lecturer: Dr. L. Reh (did not show)	10
Fundamentals and Recent Developments in Heat Pipes Instructors: Dr. Paul J. Marto, Dr. F. Coyne Prenger Guest Lecturer: Dr. Claus A. Busse	29
Experimental Methods In Heat Transfer Instructors: Dr. Robert J. Moffat Guest Lecturer: Peter K. Stein	27

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Total Income	\$66,024.50
Total Expenses	\$50,723.55
Net Profit	\$15,300.95

Acknowledgments

The Executive Committee wishes to thank the many people who were involved in the organization of the Conference, the review of the papers, the smooth completion of the social programs, the successful exhibits program, and the efficient publication of the proceedings. We wish also to thank those who provided additional funds for organization of the Conference and enhancement of the social program. They are:

U. S. Department of Energy

Chevron Oil Company

Exxon

IHI (Japan)

U. S. National Science Foundation

United Technologies

American Society of Mechanical Engineers



Eighth International Heat Transfer Conference

San Francisco Hilton Hotel • San Francisco, U.S.A.
August 17-21, 1986

International Scientific Committee

<i>Country of residence of author</i>	<i>Committee Member to whom abstract should be submitted</i>	<i>Country of residence of author</i>	<i>Committee Member to whom abstract should be submitted</i>
Canada (Member)	Prof. J. H. Masliyah Dept. of Chemical Engineering University of Alberta Edmonton, Alberta T6G 2G6, CANADA	United Kingdom (Member), Ireland Australia, New Zealand South Africa, Egypt, other Middle-East countries not specified	Dr. G. F. Hewitt Engineering Sciences Division AERE Harwell Laboratory DIDCOT Oxon OX11 0RA, UNITED KINGDOM
Federal Republic of Germany (Member), Switzerland (Ger. Sp.), Austria, Scandinavia, German Democratic Republic	Prof. E. Hahne Inst. für Thermodyn. u. Wärmetechnik Universität Stuttgart P.O. Box 80 1140 D-7000 Stuttgart 80 FEDERAL REPUBLIC OF GERMANY		Prof. H. C. Simpson Dept. of Thermodyn. & Fluid Mech. University of Strathclyde George Street Glasgow G1 1XJ, UNITED KINGDOM
France (Member) Switzerland (Fr. Sp.), Algeria, Tunisia, Latin Amer. and North African countries not specified	Prof. M. Combarous Université de Bordeaux I Laboratoire de Mécanique Physique 351 Cours de la Libération 33405 Talence, FRANCE	United States of America (Member) Mexico	Prof. C. L. Tien Dept. of Mechanical Engineering University of California Berkeley, CA 94720 U.S.A.
India (Member) other South Asian countries not specified elsewhere	Prof. M. V. Krishnamurthy Dept. of Mechanical Engineering Indian Institute of Technology Madras 600 036, INDIA		Prof. J. K. Ferrell Dept. of Chemical Engineering North Carolina State University Raleigh, NC 27650 U.S.A.
Israel (Member)	Prof. G. Hetsroni Dept. of Mechanical Engineering Technion—Israel Institute of Tech. Haifa 32 000, ISRAEL	Union of Soviet Socialist Republics (Member)	Prof. M. A. Styrikovich U.S.S.R. Academy of Sciences Inst. of High Temperatures Korovinskoye Chosse Moscow 127 412, U.S.S.R.
Italy (Member), Spain, Portugal	Prof. M. Cumo Cattedra di Impianti Nucleari Palazzo Baleani Corso Vittorio Emanuele II, 244 00186 Roma, ITALY	Yugoslavia (Member) Turkey, Greece, other East European countries not specified elsewhere	Prof. M. Majcen Mechanical Engineering Faculty University of Zagreb Djure Salaja 1 41000 Zagreb, YUGOSLAVIA
Japan (Member) Peoples Republic of China, Korea, Pakistan, Taiwan, other East Asian countries not specified	Prof. T. Mizushima Dept. of Chemical Engineering Kyoto University Sakyo-ku Kyoto 606, JAPAN		
The Netherlands (Member) other Benelux countries	Prof. C. J. Hoogendoorn Dept. of Applied Physics Delft University of Technology Lorentzweg 2 2628 CJ Delft THE NETHERLANDS		

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Eighth International Heat Transfer Conference

San Francisco Hilton Hotel • San Francisco, U.S.A.
August 17-21, 1986

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Eighth International Heat Transfer Conference

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August 17-21, 1986

Attachment C

	<u>Date for 1986 Conference</u>	<u>S.F. (1986)</u> (8/17-22)	<u>Paris (1970)</u> (8/31-9/4)	<u>Tokyo (1974)</u> (8/26-30)	<u>Toronto (1978)</u> (8/7-11)	<u>Munich (1982)</u> (9/6-10)
Format established	August, 1983	36	--	36	36	/
Scientific Committee organized	December, 1983	32	28	33	27	
Assembly meeting held	August, 1984	24	17	27.5	27	29
First announcement released	August, 1984	24	25	25	24	21
Abstracts (general papers due)	July 1, 1985	13.5	18	18	19	15
Authors (abstracts) informed	August 1, 1985	12.5	16	16	18	14
Invited lecturers selected	September 1, 1985	11.5	--	19	17	
Manuscripts (general papers due)	October 1, 1985	10.5	15	12	14	13
Authors (general papers) informed	January 1, 1986	7.5	12	9	12	5
Preliminary program ready	February 1, 1986	6.5	8	8	6	
Manuscripts (general papers) to printers	March 1, 1986	5.5	7	7	11 (to Germany)	6
(Rapporteurs selected)		--	6	9	10	
(General Papers to rapporteurs		--	6	7	9	
Invited lectures due	March 1, 1986	5.5	--	4	6	
(Pre-prints of general papers distributed)		--	3	4	5	
(Rapporteurs' reviews due)		--	0	3	4	
Final program distributed	August 17, 1986	0	2	1	0	
Conference held	August 17, 1986	0	0	0	0	



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Distribution of General Papers Among Countries and Regions

	Paris, 1970	Tokyo, 1974	Toronto, 1978	Munich, 1982	S.F., 1986	
					Quota	Actual
U.S.A.	140	135	102	152	150	150
U.S.S.R.	67	56	72	27	25	15
U.K.	37	22	51	58	60	55
Japan(China)	17	30	34	55(10)	60(10)	64(15)
Canada	14	10	31	28	30	31
France	21	11	26	30	30	36
F.R.G.	19	16	25	41	35	39
Yugoslavia	2	4	3	22	15	21
India	1	9	12	10	15	14
Netherlands	4	2	8	10	10	7
Israel	2	5	8	6	10	8
Italy	--	--	--	10	10	10
Others	21	30	23	--	--	--
Total	345	330	395	449	450	450

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8TH INTERNATIONAL HEAT TRANSFER CONFERENCE:
PAPER DISTRIBUTION OF PAPERS IN THE PROCEEDINGS

Country	General Papers 1st Author	Keynote Papers	General Papers All Authors
. Argentina	0	1	0
. Australia	3	1	4
. Austria	1	0	3
. Belgium	1	0	2
. Brazil	4	0	6
. Bulgaria	1	0	2
. Canada	29	2	67
. China (PRC)	16	1	44
. Czechoslovakia	1	0	2
. Egypt	2	0	3
. Finland	2	0	4
. France	32	1	90
. W. Germany(FRG)	31	1	56
. E. Germany(GDR)	1	0	6
. Hungary	4	0	6
. India	14	1	34
. Iran	1	0	1
. Israel	7	1	18
. Italy	8	0	26
. Japan	47	3	145
. Korea	2	0	5
. Netherlands	5	1	10
. Poland	8	0	14
. Portugal	1	0	2
. Qatar	1	0	2
. Rep. S. Africa	1	0	3
. Romania	1	0	1
. Saudi Arabia	1	0	3
. Switzerland	1	0	1
. Taiwan	5	0	10
. Turkey	1	0	3
. United Kingdom	47	2	114
. USSR	14	3	41
. USA	146	10	334
. Yugoslavia	5	0	9
TOTAL	<u>444</u>	<u>28</u>	<u>1071</u>

CALL FOR PAPERS AND ANNOUNCEMENT



EIGHTH INTERNATIONAL HEAT TRANSFER CONFERENCE

Fairmont Hotel • San Francisco, U.S.A.
August 17-22, 1986

About the Conference

International Heat Transfer Conferences are held every four years with the purpose of bringing together the international heat transfer community. The Conference will cover both fundamental and applied topics in heat transfer including conduction, natural convection, forced convection, radiation, boiling, condensation, two-phase flow, combined heat and mass transfer, transport in porous media, heat exchangers, heat transfer augmentation, measurement techniques, transport properties, solar energy, nuclear reactor systems, process equipment, electronic systems, combustion, biotechnology, rotating machines, etc.

The format of the Conference will be arranged with the major elements being: general papers presented in poster sessions, keynote papers by invited speakers, panel sessions on special subjects, film and video sessions, equipment and book exhibitions, short courses, and social and tour activities.

The Proceedings will contain the manuscripts of all general and keynote papers and will be distributed to the participants at the beginning of the Conference. An abstract volume will be available to all registrants prior to the Conference.

Call for General Papers

The purpose of general papers is to report original, unpublished findings in heat transfer. All general papers will be reviewed under the direction of the International Scientific Committee. Accepted papers will be required on author-prepared mats in English only, and will be published in the Proceedings of the Conference. *Authors are required to present their papers in poster sessions personally.*

Submissions are welcome from authors in any country. Authors wishing to present a general paper (or film-video materials) should submit three copies of a preliminary abstract, typewritten in English, to the appropriate member of the International Scientific Committee as listed, by 1 July 1985. Authors of abstracts considered appropriate for further evaluation will be informed by 1 August 1985 and will be provided with mats and instructions for the preparation of the complete manuscripts. These must be submitted by 1 October 1985 to the appropriate member of the International Scientific Committee together with a final abstract of about 200 words.

There will be approximately 450 general papers, all presented in poster sessions organized under specific topics. Twenty-eight keynote speakers have been scheduled.





Eighth International Heat Transfer Conference

Fairmont Hotel • San Francisco, U.S.A.
August 17-22, 1986

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Open Poster Session

CALL FOR PAPERS

An Open Poster Session will be held in the San Francisco Fairmont Hotel on Thursday, August 21, 1986 from 1-5:30 PM. This session will provide a forum for authors to present recent work that was not complete in time to meet submission deadlines for the standard sessions.

Space will be made available on a first-come, first-served basis. The session organizer will reject any submissions that violate the normal restrictions against commercialism, or that do not appear to fall within the subjects encompassed by the conference. Within these limits, authors are urged to request space to present their work. Presentations must meet the regular requirements for poster sessions except for deadlines, and work presented at the Open Poster Session will not be published in the proceedings.

Requests for space, if available, will be honored up to August 19, 1986. However, given the limited space available, authors are urged to request space as early as possible. Abstracts received by June 1, 1986, will be included in the Open Poster Session program to be available at meeting registration. A 100 word abstract of the proposed presentation should accompany the request, and should be forwarded to

Dr. John R. Howell
Department of Mechanical Engineering
The University of Texas at Austin
Austin, TX 78712
USA

Instructions on poster preparation will be sent on receipt and acceptance of the abstract.

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PANEL DISCUSSIONS/WORKSHOPS

CALL

In addition to the normal specific workshops, the 1986 International Heat Transfer Conference will organize two panel discussions dealing with "Opportunities for Heat Transfer Research and Development". The objective of these panel sessions is to delineate where future advances in heat transfer are needed, to meet either unresolved requirements in current technologies or new requirements anticipated for advanced technologies. The assessments are to be presented from the "user's" point of view. We seek to delineate what is needed for future applications. The topics for these discussions will be heat transfer problems in: 1) Manufacturing and Material Processing; 2) Electronic and Optical systems.

Each panel discussion would have three to five invited speakers, each of whom would prepare a lecture of 20 minutes duration. Panel members should be technical managers who can authoritatively evaluate the status and needs of heat transfer as applied to their applications. Each speaker would address one aspect of the session's theme, introducing the audience to the area and addressing the current state and future needs for advanced heat transfer systems in that application.

The usual Workshops dealing with specific heat transfer topics will also be held in addition to the above two-panel discussions.

Nominations of individuals to be participants in the panel discussions and requests of individuals to organize workshops on specific topics should be done as early as possible but at least by January 31, 1986. Nominations for a panelist should list his qualifications and the particular focus of his talk. Requests for workshops should indicate the organizer and topical subject matter. This material should be sent to

Professor Lawrence A. Kennedy
Dept. of Mech. Engrg.
The Ohio State University
Columbus, Ohio 43210
USA

or
Professor John C. Chen
Dept. of Chemical Engrg.
Lehigh University
Bethlehem, PA 18015
USA

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FILM/VIDEO FORUM

CALL FOR FILM AND VIDEO MATERIALS

A Film and Video Forum will be held in the San Francisco Fairmont Hotel during the Conference. This forum will provide authors the opportunity to present work visualizing heat transfer and fluid mechanic phenomena which would be of interest to the Conference participants.

Two formats for presentation will be available: 1) Scheduled showing with author narration; 2) Self contained video material which can be checked out for showing at anytime during the Conference. Video materials should be in the VHS format.

Requests for presentation of films/video material should be done as early as possible but at least by January 31, 1986. A 100-word abstract describing the film/video material should be sent to

Professor Lawrence A. Kennedy
Dept. of Mech. Engrg.
The Ohio State University
Columbus, Ohio 43210
USA

Professor John C. Chen
or Dept. of Chemical Engrg.
Lehigh University
Bethlehem, PA 18015
USA

Instructions for presenting the visualization film/video will be sent upon acceptance of the material.

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August 17-21, 1986

OPEN POSTER SESSION

THURSDAY, AUGUST 21

1:00 PM-5:00 PM—Grand Ballroom

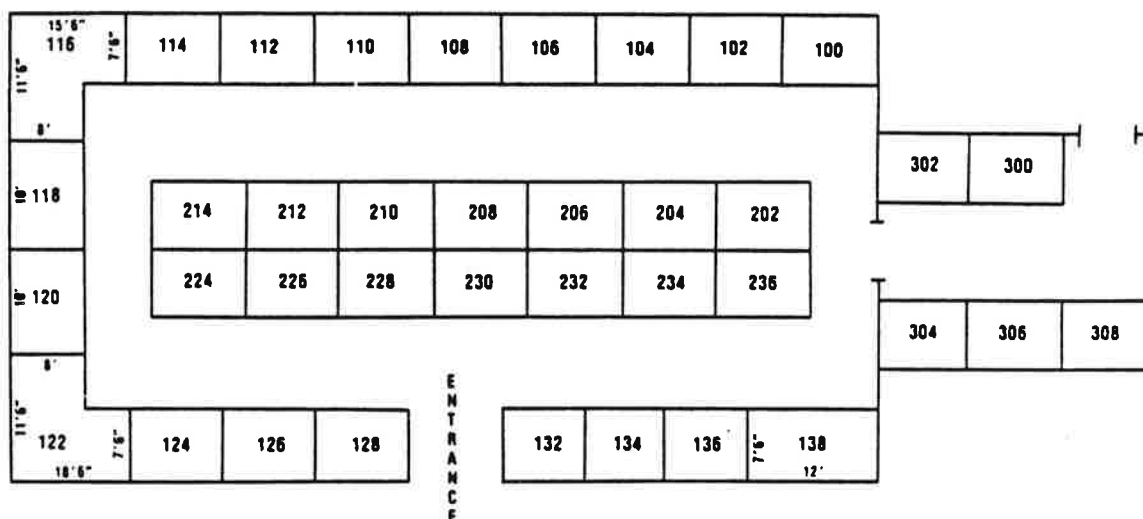
1:00 PM-2:15 PM—Terrace Room

2:45 PM-4:00 PM—Terrace Room

Poster Number	Room Location
C-00 through C-24, B-23	Grand Ballroom
100-236	Terrace Room

Grand Ballroom Floor Plan Located on Page 15 of Final Program.

Terrace Room Floor Plan
Indicating Booth Layout Is Located Below



TERRACE AND VANDERBILT BALLROOMS

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Grand Ballroom
1:00 PM-5:00 PM

F-2

AUTHOR	TITLE	POSTER NO.
L. S. FLETCHER, W. MERZKIRCH, and R. H. PAGE, Texas A&M University, College Station, TX	A REVIEW OF HEAT TRANSFER IN COMPRESSIBLE SEPARATED AND REATTACHED FLOWS	C-00
M. M. KAILA, Papua New Guinea Univ. of Technology, Lae, Papua, New Guinea	ENERGY TRANSPORT ACROSS SOLID-SOLID INTERFACES	C-0
J. C. KHANPARA, A. E. BERGLES, and M. B. PATE, Iowa State University, Ames, IA	AUGMENTATION OF CONDENSATION AND EVAPORATION OF R-113 IN INTERNALLY FINNED TUBES	C-1
J. M. MEHTA, General Electric Company, Cincinnati, OH	DOUBLE-DIFFUSIVE CONVECTION WITH SPATIALLY VARYING BOUNDARIES	C-2
A. K. RUNCHAL, Analytic and Computational Research, Inc., West Los Angeles, CA	THEORY AND APPLICATION OF THE PORFLOW MODEL FOR ANALYSIS OF FLOW, HEAT, AND MASS WITH PHASE CHANGE IN POROUS MEDIA	C-3
I. I., SIMAN-TOV, Oak Ridge National Laboratory, Oak Ridge, TN	TEMPERATURE CONTROL IN IRRADIATION CAPSULES FOR MATERIAL TESTING IN RESEARCH REACTORS	C-4
G. P. PETERSON and L. S. FLETCHER, Texas A&M University, College Station, TX	THERMAL CONDUCTIVITY OF PACKED SPHERICAL PARTICLES	C-5
NOBUHIDE KASAGI, and M. HIRATA, University of Tokyo, Tokyo, Japan	TOWARD STRUCTURAL MODELING OF THE WALL-BOUNDED TURBULENT SHEAR FLOW AND ITS TRANSPORT MECHANISM	C-6
A. CZIMCZIK and G. HIRSCHLE, L & C Steinmuller GMBH, Gummersbach, F. R. Germany	FURTHER EXPERIENCE WITH A HELIUM/HELIUM INTERMEDIATE HEAT EXCHANGER	C-7
R. H. KIM and S. R. YANG, University of North Carolina, Charlotte, NC	DEPENDENCE OF NUCLEATION SITE DENSITY ON BOILING SURFACE CONDITIONS	C-8
A. A. PESARAN and E. VAN DEN BULK, MacLaine-Cross Solar Energy Research Institute, Golden, CO	HEAT AND MASS TRANSFER IN SOLID DESICCANT DEHUMIDIFIERS	C-9
R. G. SCURLOCK, T. AGBABI, M. C. M. ATKINSON, C. BEDUZ and R. G. SCURLOCK, The University of Southampton, Southampton, England	CONVECTION PROCESSES DURING HEAT AND MASS TRANSFER ACROSS LIQUID/VAPOR AND LIQUID/LIQUID INTERFACES IN CRYOGENIC SYSTEMS	C-10
A. A. M. DELIL, Nationaal Lucht-en Ruimtevaartlaboratorium, Amsterdam, Netherlands	VAPOR QUALITY GAUGES FOR SPACECRAFT TWO-PHASE HEAT TRANSPORT SYSTEMS	C-11
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**Terrace Room
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**Terrace Room
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EXHIBITION REPORT - PROCESS OF ORGANIZING AN EXHIBITION

Conceptualization--> Design--> Implementation

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MARKETING OUTLINE FOR AN ASSOCIATION EXHIBITION

Managing one's own exposition requires an unusual degree of entrepreneurial skill, Solomonian judgment, and a favorable economic climate. Developing and managing expositions for non-profit engineering/scientific organizations requires additional dimensions including: up-to-the minute technical expertise and a readily available 'exhibit only' audience.

One of the sensitive issues facing an association exhibits staff deals with providing a successful and financially sound exposition, while at the same time producing an event that does not 'commercially' overshadow the high quality, technical nature of the conference. Expositions should serve as an enhancement to engineering conferences, not the 'reason for being'. Still, the needs of the exhibitor must be met in order to retain this exhibitor as an on-going client. How is this accomplished? The answer is to employ a dual marketing approach, which consists of (1) selling the exhibition to qualified companies, and, (2) producing a qualified audience.

In order to exist, exhibitors must be obtained. Through research, list development, prospecting and utilization of volunteer contacts and industry knowledge, the "qualified" exhibitor is uncovered. The presentation of a professional brochure, direct mail, and follow-up telephone and personal calls and solicitation must be employed to "book" the exhibitor. The qualified exhibitor must be convinced your exposition is the place to spend his precious marketing dollar.

Due to the high technical nature of engineering conference program content, there is a predictable ceiling on conference attendance. In order to satisfy the exhibitor in terms of qualified "traffic", it is often necessary to provide a qualified 'exhibit only' audience.

The production of this additional qualified audience requires at least as

much effort as the marketing and selling of exhibition space. The most important prerequisite is to maintain the engineering profile of the exposition. Therefore, the supplementary audience we are seeking must be composed of the practicing engineers in the immediate/regional area of the conference and exhibition who have an interest in the products/services on display, but whose ongoing employment is not dependent on attendance at the technical sessions.

As a result of this need to enhance attendance, location of the conference and exhibition is most important. Ideally, any conference that includes an exhibition should be located in a densely populated area with high technology industry representation.

For example, a computer exhibition seeding an engineering audience must be appropriately located in a high technology computer-oriented environment that is situated in a densely populated engineering community. Cities such as Boston, MA, Chicago, IL and New York, NY meet this criterion.

The role of expositions in the world of associations is a very important one. As exposition is one of the most powerful forces an association has to:

- . Encourage the exchange of information and technology;
- . Provide a common meeting place to conduct business;
- . Establish and on-going economic institution to promote the industry's goods and services.

In order to produce a successful exposition, the association and the exhibit staff must commit their resources completely. The association must use the staff's expertise and show experience to create an industry event -- the convening of buyers and sellers at one time and in one place. The staff must use the association's industry knowledge and contacts to create a forum that is by the industry and for the benefit of the industry.

A successful exposition/trade show has its own economic destiny. It has a beginning, a growth period, and maturity. Both association and manager must

nurture that life process. If an exposition fulfills its destiny, it will become an industry institution, vital and necessary in the orderly development of the technological and economic activities of the industry.

MARKETING AND SALES TECHNIQUES FOR
SELLING EXHIBITION SPACE

KNOW YOUR MARKET

- . Potential Exhibitors
- . Potential Audience

Yours potential exhibitors and your potential audience are like a house and carriage. One is no good without the other. Unless you properly match up the audience and the exhibitors, it will not matter how much exhibition space the audience and the exhibitors, it will not matter how much exhibition space has been sold . . for a "one-time" exhibitor will not provide the basis for an on-going, successful exposition. It is very important that a close working relationship be maintained between those that produce the exhibitors and those that produce the audience (exhibit manager and conference committee). If necessary, management must develop an additional 'qualified' audience to meet exhibitors' expectations.

PROSPECTING

Know your market for potential exhibitors. This means exploring every possible source to develop qualified lists. All and every avenue available must be employed, such as:

- . Competitive exhibitions and trade shows that share same market.
- . Member knowledge and contacts.
- . Association publications.
- . Association conference programs.
- . Association staff knowledge of industry
- . Trade press.
- . General press
- . Current exhibitors

BE AWARE THAT: "If it is not good for all, it is not good for any" CONCEPT

This means. . . make sure all exhibitors have been properly qualified. It cannot be emphasized enough that a one-time exhibitor is of no use to an on-going exposition. Continuity is the name of the game. Hard sell is not advisable unless you are totally convinced that you will be able to produce the audience the potential exhibitor is seeking. One has to believe in what one is selling in order to make an exhibitor believe that your exposition is the right marketing vehicle for his products and services.

SELL THE SHOW CONCEPT

It is especially important with "first-time" exhibitors and small companies to reinforce the concept that trade shows/expositions are a viable marketing medium. Utilization of Trade Show Bureau statistics and information can be helpful.

SPECIALIZED SALES LETTERS

Brochures and general letters will prove successful in many instances, however, there are many potential exhibitors who have to be convinced that they should participate in a particular exposition. They have to be shown in a very personal way the application of their products and services to a particular industry.

LIST MAINTENANCE

Maintain, Update, Use the lists you have developed. If your lists are not maintained and updated they become obsolete and of no value.

EMPLOY SERVICE ATTITUDE

Provide on-going assistance, service and courtesy to your exhibitors. Too many exhibition managers "book 'em and forget 'em". The exhibitor will be receptive to return to an atmosphere that has been pleasant and helpful.

'EXHIBIT ONLY' AUDIENCE
ATTENDANCE PROMOTION TECHNIQUES

Any single show/exposition requires heavy campaigning to provide a high caliber audience for its exhibitors, especially if the event is national in scope and is held in a different city/location every year.

The following represents techniques used to increase 'exhibit only' attendance.

Publications

Exhibitor listings along with their product descriptions are highlighted in a "show" issue of the Association's major monthly magazine, published immediately preceding the conference and exhibition.

Conference Advance and Final Programs

The exhibition is highlighted in conference advance and final programs. List the names of the exhibiting companies in the final. Include complimentary passes to the exhibition.

Regional Service Offices

Work closely with the Regional Service Directors; they can assist in identifying engineering companies in their areas that should receive notification of conference and exhibition.

Professional Development

Exhibits Department and Professional Development Department work together; Exhibits includes short course information in their mailings to exhibitors, Professional Development promotes the exhibition to their short course attendees.

Student News

Promote student attendance at exhibition by including articles in Student News publications and mailings.

Association Public Information/Public Relations Department

When Public Information is successful in attracting local radio/TV coverage to an Association conference/exhibition, it is to everyone's advantage in increasing local, regional 'exhibit only' attendance.

Complimentary Passes

- Unlimited quartets are sent to exhibiting companies in advance of event so exhibitors may invite their own regional clients to the event.
- Every association member in the local sections surrounding the location of the conference and exhibition receive passes and an Exhibition Directory.
- A listing of area industry chief engineering executives is compiled; they receive complimentary passes and the Exhibition Directory.
- The local sections of other associations with similar interests are sent complimentary passes and Exhibition Directories.
- Potential exhibitors who did not book space but who are interested in rating exhibition for future participation are sent passes and directories.
- Public Information is provided with complimentary passes which they send to the media/press

Volunteer/Staff Responsibilities - Who Does What?
PLANNING, ORGANIZATION AND EXECUTING OF AN ASSOCIATION EXHIBITION

MEMBERS

Provide the enthusiasm and impetus for new exhibitions. Members provide staff with the support and technical expertise to carry out the day to day activities of exhibition organization, sales, and management by:

- . Initially identifying those companies which are the industry leaders in a particular field.
- . Identifying competition the exhibition will encounter, i.e., other exhibitions, conferences which cover same/similar field or discipline.
- . Identifying publications which promote the field of discipline.
- . Providing technical expertise regarding types of product/services which should be represented at the exhibition.
- . Serving as consultants to exhibition management to ensure appropriate products/services are being represented.
- . Supporting and promoting exhibit hall 'traffic builders'.
- . Encouraging technology transfer through exhibitor participation in conference program.
- . Promoting locations which meet conference needs and encourage and enhance exhibition viability.

STAFF

Provide the day to day management, planning, organization, sales, marketing, execution of Society exhibitions held in conjunction with technical conferences by accomplishing the following:

- . Design & production of all printed matter (including brochures, directories, passes, exhibitor packets, mailings, advertisements, invoices, badges, advance/final conference program exhibition related information.
- . Develop & implement marketing plan for exhibit booth sales.
- . Conduct sales via telephone solicitation, direct mail, personal calls.

- Negotiate with & select appropriate facilities & vendors including actual exhibition facility, printers, decorator/drayage contractors, guard service, janitorial services, florist, caterer, photographer, common carrier, plumbers, electricians, etc.
- Prepare, recommend, monitor, adhere to individual exhibition budget.
- Maintain detailed accounting for exhibition income and expenses; process all monies received, verify accounts receivables; approve and process expenses, verify accounts payables.
- Prepare/produce exhibition related reports (including registration lists, audience profiles, demographic surveys, monthly sales reports, final reports).
- Participate in divisional committee meetings as required.
- Maintain Society policies that govern exhibitions.

TYPICAL EXHIBITION BUDGET

INCOME

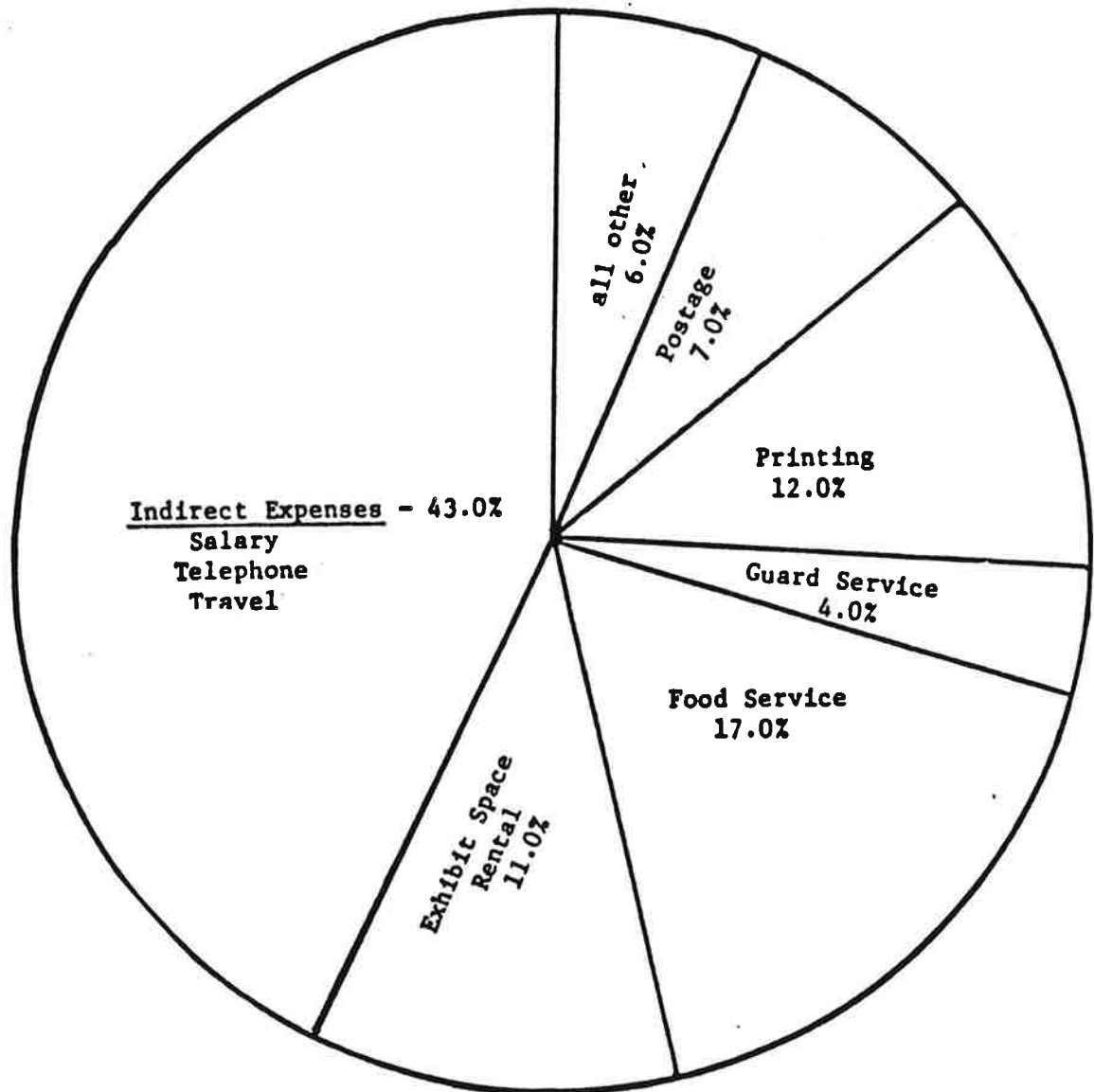
Exhibition income is primarily derived from the rental of exhibit booths. A very small amount of revenue is realized from 'exhibit only' admissions.

EXPENSES

The following expenses are usually incurred as a result of producing a typical exhibition:

- . artwork
- . advertisements
- . badges
- . communications
 - two-way radios
- . decorating/drayage contractor
 - carpeting, aisle
 - masking & column draping
 - aisle signage
 - informational signage
 - directional signage
 - union labor
- . exhibitor's lounge
- . electrical charges
- . entertainment
- . florist
- . food service
- . guard service
- . janitorial service
- . microphone charges
- . 'next show' promotion
- . printing
- . postage
- . public relations
- . photography
- . reproduction
- . rental, exhibition space
- . rental, furniture & equipment
- . registration
- . stationary & supplies
- . salary
- . transportation/shipping
- . travel
- . telephone

EXHIBITION BUDGET EXPENDITURES
Exhibit Department



GUIDELINES FOR AN ASME STAFF MANAGED EXHIBITION

When an ASME Division/Group is considering holding an exhibition in conjunction with an ASME meeting or conference the following questions should be taken under consideration prior to obtaining Board on Communications approval:

1. What type of exhibition is under consideration?

tabletop _____

rod and drape _____

hospitality suites _____

2. Determine anticipated size of first year exhibition

number of tabletops _____

number of booths _____

how many hospitality suites to be offered or available _____

3. Determine frequency of this new event, i.e., annually, biennially.

4. What types of products/services should be exhibited at this event?

5. Provide a sampling of those types of companies/organizations that produce/sell/manufacture the above noted products. Please provide company name, address, name of director of marketing for particular product group, or ASME contact at the company or organization. (Kindly use attached sheet for this purpose).

6. Provide a listing of exhibitions/trade shows that are presently in existence which would be considered in competition with this proposed event. If possible, this listing should include the name of the sponsoring organization of this competitor, an exhibit brochure, and a listing of exhibitors at this/these competing event/s.

7. Is there presently any other ASME conference/meeting/exhibition which covers this same field of interest or this same discipline? If so, kindly list below:

8. Consider the most appropriate location for this proposed exhibition.

Has a site already been chosen for the year in which this exhibition would begin? _____

If so, name the city and the facility _____

If the facility has been chosen, is it large enough to house an exhibition? List the chosen facility _____

Has a headquarters hotel been chosen? YES _____ NO _____

If a headquarters hotel has been chosen, are there enough sleeping rooms to house BOTH conference attendees and exhibitors? YES _____ NO _____

Will overflow hotel sleeping rooms be required? _____

If the site of this exhibition has NOT been chosen, what do you consider to be the most appropriate location for an exhibition of this kind.

List cities in order of preference:

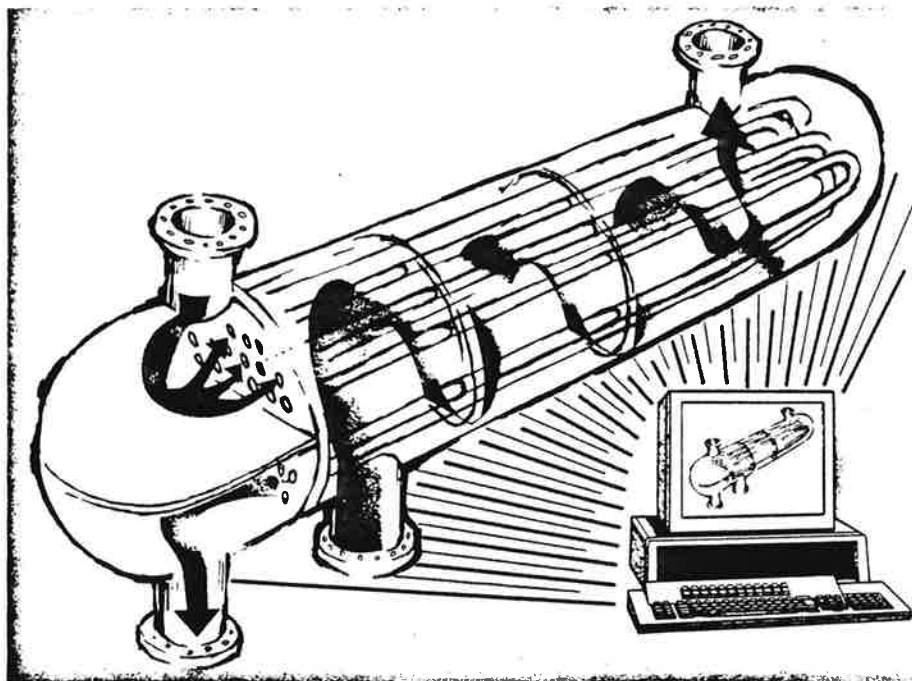
9. If a conference has been in existence prior to the addition of an exhibition, please provide a history of the conference including attendance for the past three (3) years, number of sessions, demographics of attendees, companies represented.

10. Is the conference committee agreeable to promoting "EXHIBIT BUILDERS", i.e., coffee breaks, box luncheons, receptions hosted in the exhibition hall?
11. Kindly list those publications OTHER THAN ASME publications which promote this field of interest.

12. Kindly list companies and organizations that produce, sell, manufacture the types of products and services which should be displayed at this exhibition. If possible, provide the following for each company and/or organization..Name of company, address, director of marketing of particular product group, an ASME contact, telephone number.



EIGHTH INTERNATIONAL HEAT TRANSFER CONFERENCE & EXHIBITION



**MEETING DATES:
AUGUST 17-22 1986**

**EXHIBITION DATES:
AUGUST 17-20 1986**

FAIRMONT HOTEL

SAN FRANCISCO, CA

8th INTERNATIONAL HEAT TRANSFER CONFERENCE AND EXHIBITION

CONFERENCE

History

International Heat Transfer Conferences are held every four years with the purpose of bringing together the international heat transfer community.

Sponsors

The 8th International Heat Transfer Conference and Exhibition is being organized by the United States Conference Committee under the authority of the Assembly for International Heat Transfer Conferences with the cooperation of the International Scientific Committee, The American Society of Mechanical Engineers (ASME), and The American Institute of Chemical Engineers (AIChE). ASME and AIChE bring years of experience to this international event, for in each of the intervening three years, these two Societies jointly sponsor the U.S. based National Heat Transfer Conference & Exhibition.

Focus

Conference sessions will be concerned with today's technology focus on the many innovative industrial developments in heat convection, conduction, radiation, and phase change.

EXHIBITION

Products/Services on Display

Recognizing the significant growth and advances in the heat transfer industry, and based on a very successful exhibition held by the National Heat Transfer Conference, the International Heat Transfer Conference Assembly has expanded the 1986 Conference to include an extensive Heat Transfer Equipment Exhibition.

The newest and most current applied heat transfer technology will be featured at the Exhibition, including:

- Heat Transfer Equipment/Associated Components
- Electronic Cooling Equipment
- Fabrication Techniques
- Testing & Maintenance Equipment
- Heat Transfer & Fluid Flow Instrumentation
- Design & Analysis Computer Software
- Computer Hardware for Heat Transfer Applications
- Technical Publications

Where

Fairmont Hotel
Atop Nob Hill
San Francisco, CA 94108
(415) 772-5000
TWX: 9103726002

When

EXHIBITION DAYS/HOURS

Sunday, August 17, 1986	3:00 PM-7:00 PM
Monday, August 18, 1986	12 Noon-6:00 PM
Tuesday, August 19, 1986	10:00 AM-6:00 PM
Wednesday, August 20, 1986	9:00 AM-12 Noon

ATTENDEES

Demographics

1,200 conference attendees from 50 different countries representing all continents of the world will attend this conference and exhibition. A substantial number of these conference attendees will be from Europe and Asia. Our marketing efforts will also produce a qualified U.S. "exhibit only" audience.

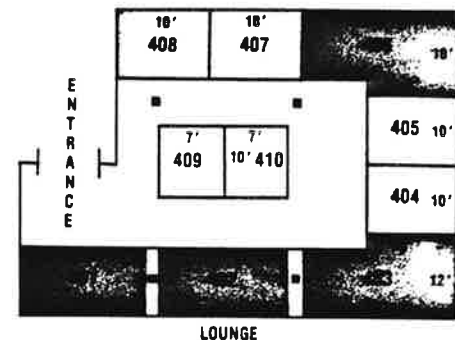
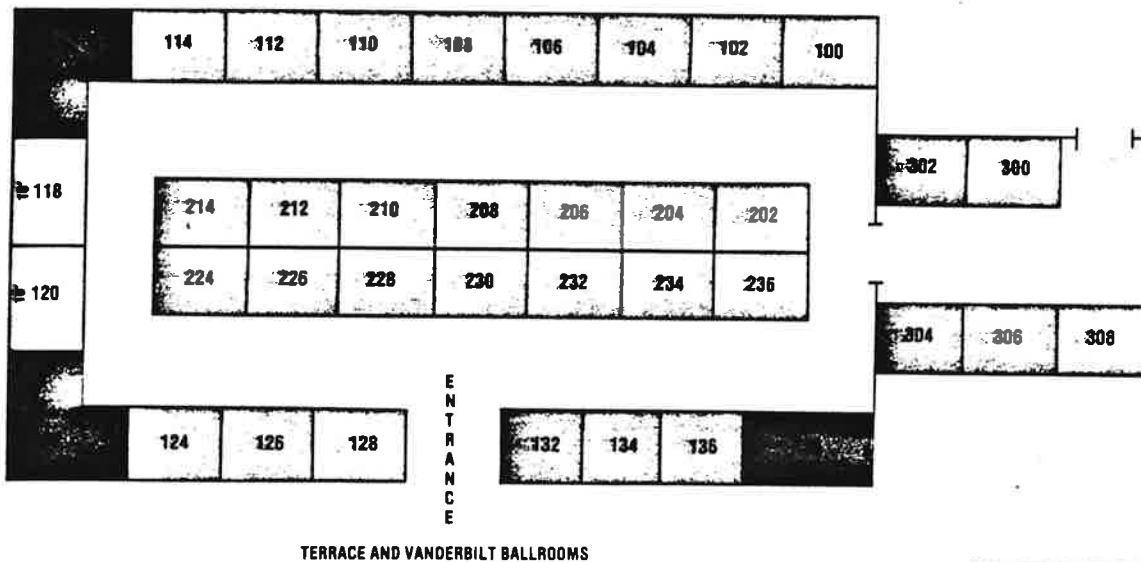
Engineers

These MECHANICAL and CHEMICAL ENGINEERS will represent the following industries:

Industries Represented

- process • petrochemical • power • waste heat recovery •
- air-conditioning & refrigeration • aerospace • automotive •
- cryogenics • combustion •

FLOORPLAN, RATE SCHEDULE, BENEFITS AND SERVICES



- 8' high back and 3' high side rail drapes.
- 2 line identification sign denoting company name, city, state, booth number.
- General guard service.
- Daily aisle maintenance.
- 100 Complimentary "Guest Passes" (additional available on request)
- Attendee Registration List.
- Company listing & product description in the Official Exhibit Directory. This Directory is a vital marketing tool; 15,000 copies will be mailed to potential "exhibit only" attendees six weeks prior to this event.*
- Company listing & product description in *Mechanical Engineering*. This monthly publication has a circulation of 114,000 engineers! Reader Service Card will be assigned to exhibitors' listing.*
- Company listing in Conference Final Program; distribution of 10,000.*
- Press Room at your disposal. Your press kits may be displayed and distributed from this major contact point for press and media representatives.

- Special Events scheduled in Exhibit Hall to maximize attendee/exhibitor interaction, including refreshment breaks; all events sponsored.

COLOR CODE

- ☐ White Booths—\$795
7' x 10'
- ☒ Grey Booths—\$865
7'6" x 10'
- ☒ Light Red Booths—\$900
8' x 10'
- ☒ Dark Red/Oversized Booths—see below
 - Booth 138—90 square feet—\$1025
 - Booths 401, 402—112 square feet—\$1275
 - Booth 406—120 square feet—\$1365
 - Booth 122—133 square feet—\$1510
 - Booth 403—136 square feet—\$1545
 - Booth 116—148 square feet—\$1680

Peninsula booths may be achieved by combining four or more booths back to back with an aisle on three sides

*There are print deadlines associated with these offerings.

★ ANNOUNCEMENT ★

**The 8th International Heat Transfer Conference
will sponsor an
Equipment/Technology
EXHIBITION
August 17-20, 1986
San Francisco, CA**

WHY . . . YOU SHOULD EXHIBIT: A Most Important Marketing Decision

- Attendees are a PRE-SELECTED audience. All QUALIFIED MECHANICAL & CHEMICAL ENGINEERS involved in the heat transfer industry.
- These ENGINEERS attend the exhibition to view, evaluate, test your most current products and services. They are the knowledgeable EXPERTS in the engineering field . . . these engineers are the individuals who will purchase, or recommend for purchase the most appropriate products for their companies and clients.
- An incredible opportunity to enhance your INTERNATIONAL market. Over 1,200 INTERNATIONAL attendees will attend this Conference.
- An opportunity to invite your West Coast clients to view your most up to date products, services and technology.
- As the National Heat Transfer Conference & Exhibition does not meet in the year of an International Conference, U.S. Mechanical and Chemical ENGINEERS who normally attend the annual National Heat Transfer Conference will also be in attendance.
- U.S. attendance will be supplemented by our marketing strategy to produce a qualified, regional "exhibit only" audience.

First time in 20 years this internationally renowned conference to be held in the U.S.! TAKE ADVANTAGE of this forum to reach such a highly specialized ENGINEERING audience. Don't pass it by!

Fill out the Space Application contained in this brochure and return IMMEDIATELY to reserve booth space.

EXHIBITION SPACE APPLICATION

**8th International Heat Transfer
EXHIBITION
August 17 - 20, 1986
San Francisco, CA**

INSTRUCTIONS

1. Fill out all information requested.
2. Sign this form.
3. **MAIL IMMEDIATELY** to.
ASME Exhibits Department
The American Society of Mechanical Engineers
345 East 47th Street
Mail Stop: 5M
New York, NY 10017
TWX: 7105815267
(212) 705-7100
4. Upon receipt of this application, we will issue you a letter of definite confirmation along with a contract outlining all specifications including booth rental and terms of payment.

COMPANY _____

MAILING ADDRESS _____

CITY _____ STATE _____ ZIP _____

BY _____ DATE _____

(Authorized Signature)

NAME _____

(Please print or type)

TITLE _____

(Please print or type)

Number of booths desired _____

Type(s) of booths desired _____

Booth choices

first choice _____

second choice _____

third choice _____

Companies you wish to be near: _____

Companies from which you desire separation: _____

Products/Services to be displayed _____

LISTING OF FORMER EXHIBITORS

(NATIONAL HEAT TRANSFER EXHIBITION)

American-Standard	Harrison Radiator Division
American Vicarb Corporation	General Motors Corporation
Amertap Corporation	Heat Transfer & Fluid Flow Services
Andesco Sales, Inc.	Hemisphere Publishing Corporation
APV Equipment, Inc.	Hitachi, LTD.
Arcturus Publishing Company	InterCept Software
Baltimore Aircoil Company, Inc.	Miller-Picking Corporation
Bavex, Inc.	Monsanto Industrial Chemicals Company
B-JAC Computer Services, Inc.	Niagara Blower Company
Bos-Hatten, Inc.	Phillips Petroleum Company
Carborundum Company	Powerfect, Inc.
Conax Corporation	Resorcon, Inc.
Conco Systems, Inc.	SIHI Pumps, Inc.
Dantec Electronics, Inc.	Springer-Verlag New York, Inc.
Dean Brothers Pumps, Inc.	Temprite, Inc.
Dow Chemical USA	Timet, Inc.
Dow Corning Corporation	Tubular Exchangers Manufacturers
Expansion Joint Manufacturers	Association, Inc.
Association, Inc.	John Wiley & Sons, Inc.
Graham Manufacturing Company, Inc.	

The American Society of Mechanical Engineers
The American Institute of Chemical Engineers

DO YOU HAVE ANY QUESTIONS OR NEED ASSISTANCE?

If so, please call us at (212) 705-7100

ASME Exhibits Department

The American Society of Mechanical Engineers

345 East 47th Street

Mail Stop: 5M

New York, NY 10017



The American Society of Mechanical Engineers

United Engineering Center • 345 E. 47th St., New York, N.Y. 10017 • 212-705-7722 • TWX 710-581-5267

Wen T. Chow
Group Director, Technical Affairs
(212) 705-7055

July 1984

RECEIVED			
Steam Generator Product Office			
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SJG		TO	
JAM		DES	
JPP		YS	
MJA		DAS	
WMS		CSW	
		CLW	
FILE			

TO: Chairmen, Technical Divisions and Subdivisions

FROM: W.T. Chow *Wen Chow*

SUBJECT: Poster Session

ENCLOSURE: Manual for a Poster Session, by R.K. Shah, Heat Transfer Division, dated June 8, 1984.

"Poster Session" has become increasingly popular as a means for technical information transfer. Many divisions are actively planning to include this form of presentation at their future conferences.

The enclosed "Manual for a Poster Session" is sent to you as a guide and reference.

This manual was prepared by R.K. Shah based on the use experience of the Heat Transfer Division during the past several years. It was found to be invaluable to the organizers and authors.

If you have any specific questions, please contact R.K. Shah on 716-439-3020.

If you have any suggestions or additions based on your own experience, please send the information to me to be included in the future revision.

WC:sc

cc: Technical Vice Presidents
Vice President, Board on Communications
Chairman, Meetings Committee
Chairman, Inter-Council Committee on WAM
Members, COE Committee on Technical Planning
Regional Vice Presidents
I. Berman
J.W. Holl
R.K. Shah
J.M. Howell
J. Frey
E. Larman
P. Santella
H.H. Tinning
L. Friedman
K. Darian
W. Cernilli

8 June 1984

MANUAL FOR A POSTER SESSION

GENERAL

In a poster session, there will be no oral personal presentation of papers by authors as in a conventional paper session. Instead, the authors of each paper will be assigned to a booth equipped with a bulletin board on which they may mount diagrams, graphs, data, pictures and a small amount of text to illustrate the main points of their presentation. One of the authors of each paper will be expected to remain at their booth during the two hour scheduled period in order to present their paper and answer specific questions. The objective of the poster session is to provide authors with sufficient time to present their subject matter to those really interested in an informal manner on a one-to-one basis, and encourage a two-way exchange of ideas. Hopefully, this will result in continued research and development activities of the authors and conference attendees, and the authors will be able to develop more personal contacts. The poster session also provides an opportunity to the audience of access to many papers that would not have been possible with parallel paper sessions. The following sections summarize the instructions for the ASME National Staff, Session Organizers, and the Authors for a highly successful poster session.

INSTRUCTIONS FOR THE ASME

ROOM LOCATION AND SIZE

One of the key elements for the success of poster sessions is the location and size of the room for the session and the equipment provided to the authors. The room should be located in the heavy traffic flow area of the hotel/convention center. One of the ideal places is to have the room close to the ASME registration or paper sale area.

The room should be of proper size such that the authors have adequate space but also the room should not appear to be empty. Ideally, the authors of each poster presentation should be provided a booth with a floor area of approximately 2.5 m x 3.0 m (8 ft x 10 ft). All peripheral areas of the room should be filled with poster presentations (booths) with good size walking aisles.

BOOTH DESCRIPTION AND EQUIPMENT

ASME should equip each booth as follows: a 1.25 m (4 ft) high by 1.80 m (6 ft) wide horizontal bulletin board (poster board) mounted with its lower edge approximately 1 m (3 ft) above the floor, a flip-chart type pad mounted on an easel, at least three or more chairs, one table, one pointer, two felt tip pens of different colors, thumb tacks and masking tape. Blackboards, chalk, and erasers should also be available in the poster room for additional discussion. No audiovisual equipment will be supplied except for approved

exceptions in which requests have been made well in advance. Note that the poster board should be made up of soft material to facilitate the use of thumb-tacks, staples, etc. Also the above size of the poster board is a minimum. If the poster board size available is smaller than the above specified, ASME should immediately inform the conference program chairman/representative of the actual size of the poster board.

ASME should send copies of the preprint or the symposium volume well in advance to the authors so that they can prepare the identification number of their paper for their booth.

INSTRUCTIONS FOR THE SESSION ORGANIZERS

You are the coordinator between the authors of the poster session and the conference program chairman/representative. An early decision on the poster session is essential for both the authors and the ASME organizers. The ideal time for the decision is the time of abstract (of the paper) acceptance or earlier. This way when you write a letter to the authors for accepting the paper based on the abstract, you can inform them that their paper will be in a poster session. Also you will be able to inform the ASME well in advance your needs for a poster session. Please forward this "Manual for Poster Sessions" to the authors as soon as you can.

You are a bridge between the authors and the conference program chairman/representative. Please help the authors to resolve their questions and problems throughout the organization. Also decide at least two months in advance and arrange a coffee/cola break for the authors, if they request, as mentioned on page 6. Keep the conference program chairman/representative informed on the progress of your session.

The papers to be presented in a poster session can be published either in an ASME symposium volume or as individual preprints. After you make the decision on the publication, inform the authors and the conference program chairman/representative.

INSTRUCTIONS TO THE AUTHORS

Detailed instructions are provided below for your outstanding poster presentation. For further questions, please contact your session organizer. It is imperative that one of the authors or their designated representative is present at their booth during the entire poster presentation. Posting of posters at the booth with absence of the authors/representative is not acceptable by the ASME.

POSTER PREPARATION

As a general guideline, it is suggested that the posters be carefully prepared so that they can be easily understood even in the absence of the authors. The content of each poster should be clearly divided into sections

including abstract, introduction, problem definition (or aims of work), work summary, results and conclusions. In short, posters should contain all the essential information in your paper, but should not be cluttered with unnecessary details. Figures, charts, photographs, etc., should be similar to those in the preprint of your paper so that they will be easily recognized by the conference attendees. Each Figure and Table should have a brief title. Overall, your posters should provide an easily remembered "take home message". The sizes and number of posters used are left to the discretion of the authors.

Posters can be prepared on ordinary 8.5" x 11" or A4 size papers. Larger sheets may also be used. All lettering should be large enough to be read from a distance of 2 m (6 ft) or more. Diagrams and figures should be large enough to be readily understood from a distance of 2 m (6 ft) or more. Hand lettering may be used, but it must be done neatly using horizontal guidelines, and letters must be at least 1 cm (3/8") high with heavy lines. It need not, in fact, should be "arty". Simple use of color can add emphasis effectively. Shade block letters where possible. Suggested lettering size is 3 cm (1-1/4 in.) for the poster title, and it is 2 cm (3/4 in.) for names and addresses of authors and section headings such as ABSTRACT, INTRODUCTION, RESULTS, DISCUSSION AND SUMMARY. Typewritten material should be made using a Bulletin typewriter or an IBM "Orator" element. Information typed on a standard typewriter is in no case acceptable; however, it will be acceptable if the typewritten page is enlarged on a xerox machine to the appropriate lettering size. SPACE THE TYPING FOR EASIER READING.

As much care should be expended on the preparation of posters as for the preparation of the original diagrams for the paper or for the preparation of slides for papers presented in the conventional manner. Many of the rules for the preparation of good slides apply to the preparation of good posters (e.g., keep them simple, avoid overcrowding, make sure letters are large enough to be legible, make sure lines are thick enough to be seen from a distance, make sure that there is enough contrast between lines or lettering and background, do not try to provide too much information on one sheet, etc.). Of course, various colors can be used to enhance the understanding and improve the appearance of your posters. However, authors should feel free to use whatever material they wish to convey the necessary information, including copies of pages from lab notebooks, strip chart recordings, etc. Please do not mount the posters on heavy board because they will be difficult to mount on the poster board.

We stress that it is important not to include too many details in your posters. A poster overloaded with findings will rarely attract attention. Remember, you will be in attendance to provide further information to delegates, and you will have the flip-chart available for explaining details. Note also that your paper will be published in the symposium volume or as a preprint and will be available to delegates before they arrive at the poster session.

POSTER ARRANGEMENT

Each poster board will have an identification number, either an ASME Paper Number or a Symposium Volume Number. This number will be prepared and put in place by the authors. The heading label (30 cm high x 120 cm wide, and prepared by the authors) should be placed at the top left corner. It should show the title, authors' names, and their addresses. Preferably, the title of the paper should cover the complete width of the poster board. It should be emphasized that you select the optimum size of the heading label so that a substantial amount of the available poster space is not filled up. Also for multiple authors, you need not provide the address of each author on the poster board to conserve the space.

It is very important to plan carefully the optimum use of the remaining poster space. A subdivision into standard sections may be helpful. Comprehension of the poster would be greatly facilitated by mounting all sections in vertical columns. There is no obligation to fill the entire space available with information! At the same time, do not put up a complete manuscript that takes 30 minutes to read!

All posters to be posted must be made before you arrive. The poster should be mounted in your own conference room, viewed, discussed, and possibly improved by your colleagues before setting off to the conference.

Remember that the impression your posters create will influence greatly the evaluation of your paper by the technical community.

ATTENDANCE AT BOOTHS

You are expected to be in attendance at your booth throughout the period of your session (120 minutes). For papers with multiple authors, only one of the authors needs to be present at all times during the session. Co-authors can make a joint presentation. If authors are unable to be present at their booth during the time assigned, they should arrange for their booth to be manned by a person familiar with their work. If an author has more than one paper in the poster session, it is the author's responsibility to prearrange somebody to man each additional booth. From experience, it is impossible for an author to be present at more than one booth.

DISCUSSIONS WITH DELEGATES

The poster session is much more than a question-answer session. It should retain all good points of the paper session as well as provide an opportunity to individuals to ask more specific questions. In this regard, we urge you to prepare a short (3-5 minutes) oral summary (mini lecture) of your paper. It is your responsibility to provide mini lectures to the audience when they come to your booth. This will orient them to understand the general content, overcome the shyness if any, and make them ready for specific questions. You should not anticipate the audience knowing your research work and start asking questions.

later and to arrange for an informal discussion session at some mutually convenient time, in addition the foregoing suggestion (1).

- (3) Unfortunately, there does not appear to be any way to organize periods during the session when authors can visit other booths. We recommend that if a poster author must see a particular author during the scheduled period, the visit should be restricted to a 15 minute period (maximum). Please indicate on your easel board the time you left your booth and when you expect to return so that other delegates may plan their visit with you accordingly.

COFFEE/COLA BREAK FOR THE AUTHORS

The other disadvantage of the poster session is that the authors might get tired by standing and talking for about a two hour period instead of the usual 20 minute presentation. However, this is a minor disadvantage if one believes that the duty of an author is to convey useful technical information in the best possible way to as many people as possible. A chair and a pointer will be provided so the author may sit down. I also recommend that coffee/cola be provided just to the authors behind one of the booths. The cost of the beverages should be shared among the authors and the session organizers. I suggest that the session organizers take the responsibility of collecting money and providing coffee/cola through the ASME staff that works directly with the hotel catering service.

AUTHORS' BRIEFING

You are invited to an authors' briefing in the morning of the day of your session. Its actual location and time will be indicated in the final conference program or can be obtained from the information booth at the conference. This meeting will serve the following purposes:

- (1) You will be introduced to the other authors in attendance.
- (2) We will know that you are present and that your booth will be manned. However, it is highly recommended that you inform your session organizers as soon as you arrive to the conference.
- (3) The session organizers will be able to communicate any last minute instructions and answer your questions.

If you will be unable to attend the authors' briefing, please contact one of the session organizers beforehand.

A word of caution: please try to avoid having one or two visitors monopolize your time during the session. Make sure that everyone who wishes has an opportunity to discuss your paper with you. Remember that there will be extensive facilities nearby for further informal discussion after your session. If a detailed discussion with a particular delegate is preventing others from discussing your paper with you, please suggest the person involved meet you later at a convenient time in the informal discussion area.

SUGGESTION TO AUTHORS

If appropriate to your presentation, we highly encourage you to bring samples and hardware (to be displayed on the table) related to your paper. That would provide a clear picture of what you want to say and enhance the general interest in your paper.

If you can provide something for the participants to carry away with them, a one-page outline, bibliography, etc., your presentation may be remembered longer, but this is largely a matter of taste, since a published version of your paper should be available at the conference. Whatever you furnish should be supplementary information.

You may provide a sign-up sheet at your booth to collect the names and addresses of participants who wish more information about your paper.

MOUNTING AND REMOVAL OF POSTERS

We expect the authors to arrive at least one-half hour before the start of the session. If you have carefully arranged your posters beforehand, fifteen minutes should be ample time to mount your sign and posters. It is imperative that you plan the layout of posters before you arrive at the booth. It is the authors' responsibility to remove all the posters and clean their area before they leave the room during the last 15 minutes of the session.

One of the major difficulties and disadvantages of poster sessions is that participating authors do not have an opportunity to visit with other authors within their sessions. If co-authors are in attendance, this presents no problem since one of the authors can always be on duty at the booth. Otherwise, the following are the suggestions to accommodate authors attending other booths in the same session:

- (1) Each session is organized for three hours. The authors are expected to be at their booth for the first two hours. After that, for the next 45 minutes, all booths in the session will remain open during which the authors can visit other booths and discuss, or make an appointment with other authors for later discussions.
- (2) There will be an authors briefing in the morning on the day of your session where all authors are invited. Each author should attend this meeting. At that briefing, all authors will be introduced so that you will be able to recognize individuals

CONCLUDING REMARKS

It is my belief that well organized and prepared poster sessions offer a better way of transfer of technical information, provide an opportunity to the authors for developing more personal contacts in their specialized field, and accommodate a large number of papers in a session. It is highly desirable to have a fine cooperation among ASME, Session Organizers and the authors for outstanding poster sessions. It is hoped that the general suggestions presented in this manual leave enough freedom to the authors for individual and imaginative layout of posters, yet provide the necessary information required for rapid and efficient transfer of information to the audience.

Since this manual should be updated as we gain experience, feedback from all concerned will be appreciated. It should be directed to Mr. Wen T. Chow, Director of Operations, ASME-Technical Affairs, 345 East 47th Street, New York, New York, 10017; Tel. (212) 705-7055.



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