RISK newsletter

Published by the SOCIETY for RISK ANALYSIS

Volume 6, Number 3

September, 1986

"NEW RISKS: ISSUES AND MANAGEMENT" IS THEME OF 1986 ANNUAL MEETING

The 1986 Annual Meeting of the Society for Risk Analysis, to be held November 9-12 at the Park Plaza Hotel in Boston, Massachusetts, will feature 29 different sessions in which a total of 162 papers related to the meeting theme, "New Risks: Issues and Management," will be presented. In addition, the Wednesday program will include an all-day symposium on Material Safety Data Sheets that is jointly sponsored by SRA and the American College of Toxicology. Throughout the three-day program, four sessions will be held concurrently, a departure from past years in which three concurrent sessions were held to cover the society's three major disciplinary areas (engineering and statistics, social and policy issues, and health and environmental issues).

DEISLER TO ASSUME PRESIDENCY AT SRA 1986 ANNUAL MEETING

President-elect Paul F. Deisler, Jr., who during the 1985-86 year has served both as chairman of the society's Membership Committee and as chairman of the Annual Meetings Committee, will be installed as SRA's sixth president at the society's 1986 annual meeting in Boston November 9-12.

Deisler retired May 1 from Shell Oil Company in Houston, where he was vice president for Health, Safety and Environment. He is currently a visiting professor at the University of Houston and is involved in a number of other professional activities.

Deisler joined Shell Development Company as an engineer in Emeryville, California in 1952 after having obtained a B.S. degree in chemical engineering from Texas A&M and M.S. and Ph.D. degrees, also in chemical engineering, from Princeton University. In 1963 he was assigned to Shell Chemical Company, successively becoming manager of the Process Development Department, Industrial Chemicals Division; manager of the Martinez Plant; general manager of the Ammonia Division; and manager of the Chemical Economics Department. In 1969, he was elected Vice President, Transportation and Supplies.

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Hosts for the 1986 meeting are members of SRA's New England Chapter. Roger Kasperson, Clark University, is general program chairman, and Paolo Ricci, Arthur D. Little, Inc., Cambridge, is technical program chairman. Anthony Cox, also of Arthur D. Little, is assistant technical program chairman. Other members of the 1986 meeting committee are Michael Huguenin, Industrial Economics, Inc., Cambridge, who is the administrative chairman, and Halina Brown,

see 1986 ANNUAL MEETING, page 3

BULLETIN

The results of the recent SRA elections were announced on October 6 to be as follows:

President-elect: Vincent T. Covello, National Science Foundation, Washington, D.C.

Councilors: **D. Warner North,** Decision Focus, Inc., Los Altos, California; **Robert G. Tardiff,** Environ, Washington, D.C.; and **Ola Swenson,** University of Stockholm, Stockholm, Sweden.

PRESIDENT'S COLUMN

The Year in Review—Goals Met and Unmet

At our 1985 annual meeting in Alexandria, Virginia, I set a number of extremely ambitious goals for the Society: (1) double the membership, (2) establish related organizations in Europe, Japan, and other nations, (3) establish 10 additional local chapters, (4) put SRA on a more sound financial footing, and (5) increase communication with SRA members. Although there are still a few weeks to go before our 1986 meeting, when Paul Deisler will get the opportunity to make things right, I want to give a preliminary report now on how far we have come in meeting these goals. The most important thing to say is that many hard working people have contributed to the successes, while I must assume the responsibility for the failures.

- (1) The goal of doubling the membership will not be met this year; however, SRA membership has increased, in contrast to previous periods of stability (see the Membership Committee report in this newsletter). Moreover, we have put into place a process that will eventually result in our reaching our goal. Paul Deisler and his committee are to be commended for their hard work, but for SRA to truly prosper, we *all* must do a better job in attracting professionals interested in risk into our Society.
- (2) The goal of establishing related organizations in other nations is being impressively met in Europe. Pieter-Jan Stallen and his group have made wonderful progress in setting up a European organization that should be receiving our official recognition within the next few months. Efforts at setting up organizations in other parts of the world are moving more slowly, but conferences I have attended in Japan and India, as well as in Europe, have made it clear to me that risk assessment and management are international issues and much is to be gained by cross-national sharing of theories and discussion of problems.
- (3) We won't meet the goal of ten new chapters by November, but we do have two new chapters and others are being organized in several cities. The New England Chapter was officially recognized last February, and the Lone Star Chapter was recognized in July. These are our third and fourth chapters, following the National Capital Area and East Tennessee Chapters. Additional chapters are currently being organized in Northern and Southern California, in Philadephia, and in more than half a dozen other cities. I look to these new local chapters as the major impetus for growth and change in the SRA—especially in better serving our members. In each case, of course, special thanks are owed to SRA members who took the trouble to get the chapter going: Joe Fiksel and Tony Cox in New England, Paul Deisler and Francis Weir in Texas, Chris Whipple and Jeff Daniels in Northern California, John Garrick and Ray Boykin in Southern California, and Howard Kunreuther in Philadelphia.
- (4) Despite the Gramm-Rudman bill and an economy that is not very strong, the SRA has managed to improve its financial situation by increasing its number of sustaining members and obtaining grants from government agencies. Treasurer Steven Swanson has reminded many organizations that we need tangible evidence that they wish to encourage the SRA.
- (5) Finally, communication with our membership has indeed improved, this being the fourth newsletter produced this year. In each issue, Mike Gough and Lorraine Abbott have put together interesting accounts of major and minor news events of interest to the SRA, as well as reported on the "comings & goings" of some of our Society members. In the process, several of us have come to realize how much work is involved in producing a newsletter.

Although not specifically addressed as a goal, we have also seen progress during the year in the SRA's ability to provide leadership training for various organizations. Curtis Travis and Betty Anderson conducted our first training workshop in risk assessment/risk management at the National Academy of Sciences last April, and in June they led a one-day training session for the Maine Board of Environmental Protection. Their success with both events ensures future efforts in this direction, with one workshop already scheduled for 1987.

LONE STAR CHAPTER IS NUMBER FOUR

The Lone Star Chapter, heretofore unmentioned in the newsletter, has gained official recognition as the fourth chapter of the Society for Risk Analysis. Covering the area of Houston, TX and surrounding regions, the chapter's application was accepted at the July 27 meeting of the SRA Executive Committee. Its official status was confirmed by President Lester Lave in an August 7 letter to the chapter's first president, Francis W. Weir, Director of the Department of Environmental

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1986 ANNUAL MEETING

(cont. from page 1)

Clark University, who is chairman of arrangements and publicity. Assisting Brown have been Claire Erickson of Boston University and Jane Teas of the New England Interstate Water Pollution Control Commission. Jeanne Kasperson is in charge of book exhibits. Following tradition, SRA's incoming president, Paul Deisler, who has also served this year as chairman of the Annual Meetings Committee, is the general chairman of the meeting. Others helping in the preparations for the meeting are Richard and Sue Burk of the Society Secretariat.

There is at least one less glowing report for the year. Having promised prompt publication of the proceedings for the 1985 annual meeting, I have to tell you that we are still several months away from a bound book. I could give many excuses, but I will merely say that we have learned a good deal and should be able to live up to the promise for the 1986 proceedings.

Now we must look to the future. You have all received notices about the exciting program planned for our 1986 annual meeting in Boston in November, and it appears that the attendance will be excellent. The site of the 1987 meeting will be Houston (see story on Lone Star Chapter), which is much farther south than we have ever ventured before. We will need the support and ideas of everyone to ensure good attendance and a successful meeting.

The future will also include an announcement that *Risk Analysis*, our Society's journal, will have a 50 percent increase in size. Editor Curtis Travis reports that the journal is receiving a large number of good papers, and the size of some recent issues has already been increased to accommodate them. This reflects the health of research in the field, even though supportive funding has not been as generous as we would have liked. There are indications that agency attitudes toward funding may improve: the National Academy of Sciences has been investigating whether to initiate a study of "Research Needs in Risk Assessment and Management." I hope to have more information on this to report in Boston.

The future will also require someone smarter than I am to figure out how to get each of you involved in the SRA. I have become embarrassed by the frequent offers of help when I haven't had good tasks for you to work on. The SRA needs more ideas about what the Society should attempt to do and how to get the tasks completed. I hope that the local chapters will provide a forum for doing just this. Remember that the SRA Council meets only twice a year and the Executive Committee meets only one additional time. In contrast, local chapters tend to meet monthly and should be good forums for generating ideas and implementing them. Just as 1986 has been the year for organizing new chapters, I hope that 1987 will be the year for these chapters to gain substantial strength. For example, I would like to see more chapters sponsoring one-day programs on specific issues of interest, such as toxic waste dumps, radon, the safety of engineered systems, etc. (See this newsletter and the previous one for a report on a one-day conference being sponsored in Southern California.) The SRA is prepared to provide seed money to initiate these programs.

The strength of a voluntary organization lies in the enthusiasm and energy of its members. No one pays any of us to do things. Inevitably, these tasks must get done in the evening and on weekends. We have a tremendous reservoir of good will, intelligence and energy in our members and supporting organizations. I have been lucky to have served as president of the Society during such an exciting period.

Lester B. Lave September, 1986

SOCIETY MEMBERSHIP INCREASING

A Report from the Membership Committee

In the March issue of the newsletter I asked, on behalf of the Membership Committee, for the help of every SRA member in increasing the membership of the society. I noted that each of you would be receiving a form requesting that you send the names of candidates for membership to the Executive Secretary, who, in turn, was to promptly invite those individuals to become SRA members.

In the same newsletter, I pointed out that the total society membership was just over 1000 (as of the end of last year). I can now report that by mid-July the total number of members on the rolls had risen by 21 percent. While this does not meet President Lave's goal of doubling the membership, it is nonetheless gratifying since it is clearly a healthy step in the right direction. We have made progress.

The progress, however, can be only partially attributed to responses to our appeal, since we heard from only two percent of the membership. The bulk of the membership increase has come from vigorous efforts to establish new chapters in several parts of the United States, from the growth of the society in Europe, and from those who have joined individually after having interested themselves in the society by one means or another.

The members who did respond to our request supplied us with the names of over 100 persons, all of whom have been contacted. While two percent is a very small response for any mailing, the large number of names sent in by that fraction of the membership is very encourgaging and it raises the question of what would happen if more of the membership were to respond—say, twenty percent, which still would not be a large response.

Clearly, we still need the help of the membership, and I believe that we have the capacity to provide that help. To those of you who have not yet responded and who know of potential members, I ask that you please take a few minutes to write down and send in their names and addresses. Send them to: Mr. Richard J. Burk, Jr., Executive Secretary, Society for Risk Analysis, 1340 Old Chain Bridge Road, Suite 300, McLean, Virginia, 22101. If you no longer have—or did not receive—one of the forms mailed last spring, any blank piece of paper will do.

Act now and you will gain something a good deal more valuable than the gratitude of the Membership Committee: you will have a stronger, more varied, more capable and more responsive Society for Risk Analysis.

Paul F. Deisler, Jr., Chairman SRA Membership Committee

LONE STAR CHAPTER

(cont. from page 3)

Health, University of Texas Health Science Center, Houston.

The formation of the Lone Star Chapter partially fulfills one of President Lester Lave's goals (see December, 1985 newsletter), in which specific individuals were asked to establish new chapters in their home areas. President-elect Paul Deisler, who lives in Houston, was assigned the responsibility for that region. Deisler found only 13 SRA members living within the area (in Houston, Galveston, College Station and Huntsville), but when contacted, they not only responded favorably to the formation of a chapter but also provided names of potential members, some of whom have since joined the society. The first organizational meeting was held in early April, with Francis Weir assuming the task of chairing the organizing committee.

New Officers Announced

In addition to President Weir, the new officers are President-Elect James M. McCloy, Texas A&M, Galveston; Secretary Hatice Cullingford, NASA, Johnson Space Center, Houston; and Treasurer Eric Y. Chai, Shell Development Company, Houston. The elected councilors are Chris Butler of Shell Oil Company's Legal Department, Houston; Tom Downs of the University of Texas School of Public Health, Houston; and Anna Fay Williams, a consultant in economic analysis and marketing, also in Houston.

Chapter to Host 1987 Annual Meeting

Immediate plans of the Lone Star Chapter are to develop a one-day symposium on the topic of risk analysis and management of air toxics, a subject of great interest to Texas (see related story). On a slightly longer term, the chapter will host the 1987 annual meeting of the Society for Risk Analysis in Houston. Donald E. Stevenson, Director of Toxicology for Shell Oil Company, will be general chairman of the 1987 meeting.

NCA CHAPTER HEARS LAWYER-ENGINEER, FORMER NEWS CORRESPONDENT

At its September 10 meeting, the National Capital Area Chapter heard Joyce Davis, Chief Licensing Engineer for the General Physics Corporation, address the topic "Using De Minimis Risk as a Regulatory Concept." Davis, both a lawyer and an engineer, began with descriptions of judicial decisions that have put forth the idea that some matters are of so little importance that they can be ignored. She then talked of the use of the de minimis concept in the areas of health and safety regulations. Her presentation sparked lively discussions marked by divergent opinions about which regulatory goals are "worth it" and which are not.

TV Coverage of Toxic Risk Studied

Steven Klaidman, formerly a correspondent for the Washington Post and New York Times and now with the Kennedy School for Ethics at Georgetown University, will report on his research on the news coverage of various events at the chapter's next meeting

on December 2. His presentation, titled "TV's Coverage of a Toxic Release: A Case Study," will include a 40-minute video tape of TV coverage of a chemical plant accident in Institute, West Virginia. The meeting will be held at 6:30 pm at the Faculty Lounge of the the Intercultural Center, Georgetown University.

Chapter Has Good News, Bad News

The new officers comprising the chapter's executive committee (see related story) met on September 18 to plan five meetings for the coming year. They were greeted with the news that the treasury is in good shape because of revenues earned from a course given two years ago on *de minimis* risk. However, they also learned that a significant drop in membership has occurred. Since a number of people become members while attending chapter-sponsored lectures, it is expected that the number of members can be increased.

- Mike Gough

DEISLER ASSUMES PRESIDENCY

(cont. from page 1)

In 1971, Deisler accepted an assignment with Compania Shell de Venezuela as Director of Supply and Refining. After he returned to the United States he was named Vice President, Research and Engineering-Products (in mid-1974), a position he held until assuming the office of Vice President for Health, Safety and Environment in 1976.

Throughout his career, Deisler has also been active in a number of trade and professional organizations. He was a founding director of the American Industrial Health Council, which was formed in 1977, and served as the first chairman of the Council's Science Policy Task Force. He was also a founding director of the Chemical Industry Institute of Toxicology, which was organized in 1974, and has served on a number of its committees. In addition, he has chaired the General Committee on Health, Environment and Safety for the American Petroleum Institute and has served on advisory panels of the National Academy of Sciences and the Office of Technology Assessment.

Deisler edited the book *Reducing the Carcinogenic Risks in Industry* (Marcel Dekker: New York, 1984) and authored one of the chapters included. He has also published a number of other papers dealing with the characterization and management of risk.

LONE STAR CHAPTER SPONSORING SYMPOSIUM ON AIR TOXICS STANDARDS

SRA's newly formed Lone Star Chapter, in cooperation with local chapters of the American Industrial Hygiene Association, the Society of Toxicology, and the Air Pollution Control Association, will sponsor a symposium titled "Setting Air Toxics Standards" on January 22, 1987, at the Hobby Hilton Hotel in Houston, Texas.

A panel of prominent scientists representing the Environmental Protection Agency, the Texas Air Control Board, industry and academia, will address current EPA programs and various state programs for managing air toxics. The speakers will discuss methods, legal issues, the science relating to low-dose exposures, alternative control considerations, and the strengths and limitations of risk analysis and management approaches.

Program and registration information will be provided later. In the meantime, questions should be directed to Frank Weir, president of the Lone Star Chapter (Phone 713-792-4322).

In addition to his SRA committee activities during 1985-86, the president-elect initiated the formation of the fourth chapter of the society (see stories on Lone Star Chapter in this newsletter).

SESSION TITLES FOR 1986 ANNUAL MEETING

(Session chairmen listed below titles.)

NOTE: Four sessions held concurrently.

MONDAY, NOVEMBER 10

8:30 am - 9:30 am

Plenary Session Milton Russell, US EPA

10:00 am - 12:15 pm

Liability in Risk Management P. F. Ricci

Regulatory Policy and Risks

L. Gratt

New Methods for Cancer Risk

J. D. Wilson

Biotechnology W. Rish

1:15 pm - 3:30 pm

Biotechnology (cont.)

Case Studies: The Practice of Risk Assessment V. Cam

Cost-Risk-Benefit and Decision Analysis

L. A. Cox

Global Issues, Terrorism, Natural Disasters, and Nuclear Winter

R. Waller

4:00 pm - 5:30 pm

Global Issues, Terrorism, etc. (cont.)

Agriculture and Risk Assessment

Y. Haimes

Hazardous Wastes Disposal and Health Risks M. Gough

European Outlook on Risk

G. Pinchera

7:30 pm - 9:30 pm Banquet

TUESDAY, NOVEMBER 11

8:30 am - 10:15 am

Communication of Risk

H. Otway

The Role of Private and Public Sectors in Insuring and Compensation for Environmental Pollution Insurance

S. Wassersug and H. Kunreuther

Computer Security and Risk Analysis

L. J. Hoffman

Computer Based Methods

J. Fiksel

10:45 am - 12:15 pm

The Role of Private and Public etc. (cont.)

Computer Based Methods (cont.)

Risk Assessment and Public Health Issues

R. Patterson

Risk Assessment of Airborne Toxic Agents

L. Grant

1:15 pm - 3:15 pm

New Frontiers in Risk Assessment at the U.S. Environmental

Protection Agency

P. Preuss and H. L. Spitzer

Statistical Methods in Risk Assessment

L. R. Abramson (Co-organized by B. Buchbinder)

Nuclear Power Management Issues

H. Inhaber

Corporate Risk Management

M. Baram

3:45 pm - 5:30 pm

Statistical Methods in Risk Assessment (cont.)

Nuclear Power Management Issues (cont.)

Corporate Risk Management (cont.)

Role of Risk Assessment in the Electric Utility Industry

R. Males

WEDNESDAY, NOVEMBER 12

8:30 am - 10:15 am

Risk Management at the Local Level

E. Crouch

Communication of Risks

F. Hoerger

Chernobyl

C. Hohenemser

SRA-ACT Symposium: Material Safety Data Sheets

D. Byrd

10:45 am - 12:15 pm

Communication of Risks (cont.)

SRA-ACT Symposium (cont.)

SRA's 1986 ANNUAL MEETING: A PREVIEW

The 1986 Annual Meeting of the Society for Risk Analysis on November 9-12 promises to be an unusually lively event, with the theme, "New Risks: Issues and Management," encompassing a broad range of rich topics that will be examined under the microscopes of speakers and discussants.

Russell, Otway to Speak

Milton Russell, Assistant Administrator for the U.S. Environmental Protection Agency's Office of Policy, Planning and Evaluation, will launch the meeting with an address during the Monday morning plenary session. On the last day of the meeting, Wednesday, Harry Otway of the European Economic Community, Ispra Research Establishment, Italy, who is recognized as one of the pioneers in risk assessment and management, will deliver a luncheon address.

New Risks, Special Problems, New Methods

Discussions of new risks will be prevalent throughout the 30 sessions scheduled for the meeting. The Chernobyl accident will receive close scrutiny in a session drawing upon North American and European analysts, and a double panel session will focus on biotechnology risks, with particular attention given to the release of genetically engineered organisms. Global hazards will be the subject of another session, with several papers addressing terrorism and one paper evaluating the uncertainties involved in the predicted occurrence of a nuclear winter. Computers will also have their share of attention, with one session focusing upon new computer-based methods of risk assessment and another assessing the risks involved in computer security. In the area of public health, researchers from the Harvard School of Public Health will appraise the societal significance of AIDS, and a number of papers will treat the health risks involved in hazardous waste disposal.

The sessions will also reflect the growing interest in special problems in risk management. Three different sessions will focus on risk communication, with attention given to the Seveso Directive in Europe, homeowner responses to risk information concerning radon, lessons from natural hazards and medical risk experience, the portrayal of technological risks in Dutch newspapers, and risk communication in the Superfund program. Liability in risk management will be addressed in a session in which the papers will examine the roles of auditors and corporate officials and include a new look at the workers' compensation system.

The continuing interest of the risk community in new methods of risk assessment will also be reflected in the meeting. Sessions will address such issues as new methods in cancer assessment, developments in statistical methods of risk assessment, and new computer-based methods, including knowledge systems and automated analyses.

Special MSDS Symposium

A special feature of the annual meeting will be an all-day symposium jointly sponsored by the SRA and the American College of Toxicology to evaluate the use of material safety data sheets (MSDSs). The legal principles underlying MSDSs, toxicology principles, communication principles, and the critical problems which have emerged will all be examined. The symposium chairman, Daniel Byrd, has drawn panelists for this evaluation from a broad range of public, private, and labor organizations.

The strong interest in this year's annual meeting made it necessary to schedule four simultaneous sessions throughout the meeting, an increase over the three simultaneous sessions we have had in the past. It also appears that the titles are becoming more intriguing. Consider, for example, the contribution from Rutgers researchers entitled "Passing Gas: The Geography of Acute Toxic Airborne Releases."

Roger Kasperson General Program Chairman 1986 SRA Annual Meeting

Risk Perception B. Fischhoff

The Role of Epidemiology in Health Risk Assessment T. D. Sterling

12:15 pm - 1:15 pm

Luncheon
Harry Otway, EEC, Ispra, Italy

1:15 pm - 3:15 pm

Probabilistic Risk Assessment
E. Pate-Cornell
Private Sector Issues in Risk Assessment
W. Albers and R. Schwing
Transportation Risks
A. Boghani
SRA-ACT Symposium (cont.)

3:45 pm - 5:30 pm

SRA-ACT Symposium (cont.)

CORPORATE CONTRIBUTORS AID SOCIETY

SRA Treasurer Steven Swanson has announced that eleven different organizations are currently SRA corporate contributors, and responses from other groups indicate that the list will increase in the near future. The funds received from these organizations are used to enhance the SRA's overall program. The eleven contributors, to whom the society extends its thanks, are as follows:

American Petroleum Institute
Chemical Industry Institute of Toxicology
Coca-Cola Company
Dow Chemical USA
Exxon Company USA
Ford Motor Company

General Motors
Gillette Company
Mobil Corporation
Rohm and Haas
The Canadian Aviation Safety Board

MONTHLY D.C. SEMINARS SPONSORED BY SRA, OTHERS

The Society for Risk Analysis, the ILSI Risk Science Institute, and the Brookings Institution are jointly sponsoring seminars on risk analysis at approximately monthly intervals in Washington, D.C. The first seminar was held on September 30, with Arthur C. Upton of the Institute of Environmental Medicine, New York University Medical Center, speaking on the dose-response relationship for ionizing radiation. Invitations had been issued to persons thought to be interested in the subject, and about 80 attended.

The next seminar, scheduled for November 4, will feature Bernard D. Goldstein of Rutgers Medical School, who will speak on the standard-setting process at the Environmental Protection Agency.

Organizers of the seminars are Lester B. Lave and M. Granger Morgan of Carnegi-Mellon University, Pittsburgh, and Catherine L. St. Hilaire of the ILSI Risk Science Institute in Washington. The seminars are held at the Brookings Institution and are open to all interested persons.



EDITOR'S NOTE: The Comings & Goings column is not included in this issue, because no items were received for it. If you have changed jobs recently or have other news of interest to the society, please send the information to: Lorraine S. Abbott, Editor, Risk Newsletter, 1303 Wilson Road, Knoxville, TN, 37912.

CHAPTERS ANNOUNCE OFFICERS

Both the National Capital Area Chapter of SRA and the Northern California Chapter, the latter expecting to receive official recognition at SRA's Council meeting in Boston on November 9, have announced the election of new officers. Elections currently in progress for the East Tennessee Chapter will determine who will serve with the president-elect, William R. Rhyne of H&R Technical Associates, Oak Ridge, TN. (Officers of the new Lone Star Chapter are given in another story in this newsletter.)

NCA Chapter Officers

Steven Swanson of the American Petroleum Institute is the new president of the NCA Chapter, having served the past year as president-elect. The new president-elect is Jerry LR Chandler of the Food and Drug Administration. Kathleen W. Knox, Environmental Protection Agency, is secretary, and Lee R. Abramson, Nuclear Regulatory Commission, is serving the second of a two-year term as treasurer. Newly elected to the chapter's council is Paul S. Price of the Environmental Protection Agency. Lori Ramonas and A. Alan Moghissi have recently completed terms as councilors.

Northern California Chapter Officers

D. Warner North of Decision Focus, Inc., Los Altos, CA has been elected the first president of the Northern California Chapter. (North is also a newly

see CHAPTERS ANNOUNCE OFFICERS, page 9

SEMINAR ON RISKS OF LARGE SYSTEMS RESCHEDULED

The seminar on "The Risk Analysis of Large Engineered Systems," originally scheduled to be held in Newport Beach, California in October, has been rescheduled for December 5. It will be held from 8:30 am to 5 pm in the Meridian Hotel.

As reported in the June issue of this newsletter, the seminar will address the applications of risk analysis to four major industries: the chemical industry, the defense industry, the space program, and nuclear power. The speakers include Elizabeth Drake, former Dean of Engineering of Northeastern University and now with Arthur D. Little Co.; Haggai Cohen, Deputy Chief Engineer of the National Aeronautics and Space Administration; Jon Collin, a defense industry consultant; and Norman C. Rasmussen, McAfee Professor of Engineering at the Massachusetts Institute of Technology. B. John Garrick, president of Pickard, Lowe and Garrick, Inc., will also be on the program. Garrick and Ray Boykin, California State University, are organizers of the meeting.

The luncheon speaker for the seminar will be Julius Goodman, a professor-scientist who was a prominent member of the nuclear power community in the U.S.S.R. before he emigrated to the United States about three years ago. His topic will be "Soviet Nuclear Safety Policy and the Chernobyl Accident."

Persons who have not received announcements of the seminar in the mail may make arrangements to attend by contacting Garrick or Sue Wilke at Pickard, Lowe and Garrick, Inc., 2260 University Drive, Newport Beach, CA 92660 (Phone 714-650-8000). For hotel reservations, contact the Meridian Hotel, 4500 MacArthur Boulevard, Newport Beach, CA, and ask for one of the rooms reserved at a special rate under SRA's name.

CHAPTERS ANNOUNCE OFFICERS

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elected councilor of SRA.) Elisabeth Pate-Cornell, Stanford University, is president-elect; Jeffrey I. Daniels of Lawrence Livermore National Laboratory is secretary; and Thomas E. McKone, also of LLNL, is treasurer. Serving as councilors are John Urquhart, Palo Alto (two-year term); Robert Budnitz, Future Resources Associates, Berkeley (one-year term); and Karl Dake, University of California, Berkeley (one-year).

REFLECTIONS

RISK ASSESSMENT/RISK MANAGEMENT: WHO OWNS THE TERMS?

An unexpected joy(?) of being secretary of the SRA is that my name has been added to a number of new mailing lists. In sorting through the bundles that inevitably pile up on my desk, I have become aware that our society and its members do not have a monopoly on the terms "risk assessment" and "risk management." Indeed, these two terms appear to be everywhere. And as I consider them in some contexts, I am glad that I don't have the responsibility for estimating some of the risks that others are confronted with.

Consider, for example, those firms involved in the risk assessment and management of public events. Estimating the carcinogenic risk of industrial chemicals (which is what I do) pales, in my mind, when compared with estimating and managing the risks of an Olympic Torch Run or Hands Across America.

Neither would I want to trade professions with a man I met one recent Sunday morning out running along the C and O Canal. He decides what foreign investments are worthwhile for U.S. firms. How did he describe his job? "It's risk assessment," he said.

My daughter started to college this fall. The bill I received for her health insurance included an envelope for the return payment that was addressed to the "Office of Risk Management." Soon after that I read that two large Pittsburgh companies each have vice presidents for risk management, as I presume, many others do.

I suppose some of these people, especially those with companies handling liability insurance, might even consider the case of Joyce Davis, the speaker at our last NCA Chapter meeting. She mounted the podium with the assistance of a cane and sat during her presentation. She apologized, saying that she was recovering from a mugging and a broken leg, and then proceeded to talk about calculated 10^{-6} levels of risk from nuclear wastes. I couldn't help wondering about the magnitude of the risk of others being mugged in Washington, or in any other large city. Greater than 10^{-6} , I would guess.

On further reflection, it would appear that if all the people actively engaged in risk assessment and management were members of our society, we would have a more valid claim to these terms and in the process our membership roster could easily be larger than that of any society.

Mike Gough SRA Secretary

UNIVERSITIES OFFER NEW GRADUATE PROGRAMS

The Economics Department and the School of Natural Resources of The University of Michigan have recently reinstated a joint PhD program in natural resource economics. In the Economics Department, students in the joint program study economic theory, quantitative methods, natural resource and environmental economics, and another chosen field in economic analysis. In the School of Natural Resources, they are trained in the biophysical aspects of a resource or environmental problem area of their choosing. The university also offers masters programs in natural resource and environmental economics. For further information, write to: Natural Resource Economics Program, Economics Dept., Lorch Hall, The University of Michigan, Ann Arbor, MI 48109.

The University of Maryland is offering a Master of Science degree in reliability engineering. The required courses are applied probability and statistics, basic reliability engineering, basic reliability analysis, system safety engineering, advanced reliability engineering, and a reliability engineering seminar. Elective courses include Bayesian reliability analysis and risk assessment for engineers, among others. For more information, write to Marvin L. Roush, Chemical & Nuclear Engineering Dept., University of Maryland, College Park, MD 20742.

TRAINING SESSION HELD FOR MAINE BOARD

Two SRA members conducted a one-day training session on risk assessment/risk management for the Maine Board of Environmental Protection on June 6. The session was held by Betty Anderson, ICF-Clement, Washington, and Curtis Travis, Oak Ridge National Laboratory, Oak Ridge, TN, just two months after they had led a three-day workshop in Washington. They report that the session was well received, with considerable give and take among the participants. Expenses were paid by the host organization and, in lieu of honoraria, the Board donated \$500 to the Society for Risk Analysis.

RESEARCHER REQUESTS COMMENTS ON PROJECT

Several statements on communicating risks published in our June newsletter prompted Lance B. Eliot of the University of Southern California to send us an abstract of his current research project and to solicit comments on the project (or input into it) from our readers.

RISK COMMUNICATION AND ANALOGICAL THINKING: THE INFLUENCE OF ANALOGIES ON PERCEPTIONS OF RISK

Risk can be communicated in many complex guises. One significant form of risk communication is embodied in the use of analogies. For example, media reporting of current natural disasters will frequently refer back to a prior natural disaster, though the true sense of similarities and dissimilarities to a previous event may not have been explicitly considered. Subsequent estimations of risk by the public and the actual comprehension of risk itself may be influenced by such analogical thinking. Further, intentional swaying of public perceptions of risk can be performed by reporting preferred analogies.

Yet, in spite of the apparent power which analogies hold for risk communication, there has been only limited research concerning risk communication and analogical thinking. Our understanding of how such analogies come to be recognized, then elaborated, and finally shared in a risk context is very weak. This study investigates research in both disciplines and provides several insights into improving the ability to communicate risk. Also, the implications of risk communication analogies are indicated for both future research and practice.

Persons wishing to respond to this request should write to: Lance B. Eliot, Expert Systems Laboratory, Systems Science Department, ISSM, Room 102, University of Southern California, Los Angeles, CA 90089-0021 (Phone 213-743-5119).

The Maine Board of Environmental Protection is to be commended for turning to the the society to gain expertise in the field of risk analysis. Other SRA members are encouraged to conduct similar workshops for other state and federal organizations, not only to provide those groups with the needed assistance but also to supplement the society's normal sources of income.

CALENDAR OF EVENTS

- —November 4. SEMINAR SPONSORED BY SRA, ILSI RISK SCIENCE INSTITUTE, AND BROOKINGS INSTITUTION, at Brookings Institution, Washington, D.C. Lecturer: Bernard D. Goldstein, Rutgers Medical School. (See story in this newsletter.) Contact: C. St. Hilaire, 1126 16th St., NW, Washington, D.C., 20036 (Phone202-659-3306).
- —November 9-12. 1986 ANNUAL MEETING OF THE SOCIETY FOR RISK ANALYSIS, Park Plaza Hotel, Boston, Massachusetts. (See stories in this newsletter.)
- —December 5. SEMINAR ON THE RISK ANALYSIS OF LARGE ENGINEERED SYSTEMS, Newport Beach, California. (See story in this newsletter.) Contact: B. John Garrick, Pickard, Lowe and Garrick, Inc., 2260 University Drive, Newport Beach, CA 92660 (Phone 714-650-8000).
- —January 22, 1987. SYMPOSIUM ON SETTING AIR TOXICS STANDARDS, Hobby Hilton Hotel, Houston, Texas. (See story in this newsletter.) Contact: Francis Weir (Phone 713-792-4322).
- —January or February, 1987. MEETING OF ADVISORY COMMITTEE OF SRA-EUROPE, Paris, France. (See story in June newsletter.) Contact: P. J. Stallen, Centre for Technology and Policy Studies, TNO, PO Box 541, 7300 AM Apeldoorn, The Netherlands.
- —March 25-27, 1987. COURSE ON RECOGNITION OF ACCIDENT POTENTIAL IN THE WORKPLACE DUE TO HUMAN FACTORS, University of Southern California, Los Angeles, California. For persons interested in occupational safety and health, such as industrial hygienists, doctors, safety professionals, nurses, and insurance professionals. Fee: \$425. Contact: USC, Institute of Safety and Systems Management, Office of Extension and In-Service Programs, 3500 S. Figueroa St., Suite 202, Los Angeles, CA 90007 (Phone 213-743-6523; Telex 181101USC SSM LSA).
- —April 6-8, 1987. SECOND ANNUAL SRA COURSE ON RISK ASSESSMENT/RISK MANAGEMENT: CARCINOGENESIS. Arrangements to be announced. Contacts: Elizabeth Anderson, President, ICF-Clement, 1515 Wilson Blvd., Suite 700, Arlington, VA, 22209 (Phone 703-276-7700); Curtis Travis, Bldg. 4500S, S204, Oak Ridge National Laboratory, PO Box X, Oak Ridge, TN, 37831 (Phone 615-576-2107).
- —April 22-24, 1987. TOPICAL MEETING ON THEORY AND PRACTICES IN RADIATION PROTECTION AND SHIELDING, Knoxville, Tennessee. Sponsored by American Nuclear Society's Radiation and Protection Division. Contact: Dan Cacuci, Bldg. 6025, Oak Ridge National Laboratory, PO Box X, Oak Ridge, TN, 37831 (Phone 615-574-6196).
- —May 25-29, 1987. 5th INTERNATIONAL CONFERENCE ON APPLICATIONS OF STATISTICS AND PROBABILITY IN SOIL AND STRUCTURAL ENGINEERING, Vancouver, Canada. Contact: N. C. Lind, Chairman, ICASP5 Conference, Dept. of Civil Engineering, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1.

- —June 9-12, 1987. 11th ANNUAL CONFERENCE OF ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Seattle, Washington. Theme is "Floodplains '87: Realistic Approaches to Better Management." Program Chair: Mary Fran Myers, DOT—Division of Water Resources, 310 S. Michigan Ave., Room 1606, Chicago, IL, 60604 (Phone 312-793-3865). Conference Host: Washington Dept. of Ecology. Conference Director: Ed Hammersmith, PV Mail Stop 11, Olympia, WA 98504 (Phone 206-459-6793).
- —July 5-9, 1987. 32nd ANNUAL MEETING OF THE HEALTH PHYSICS SOCIETY, Salt Lake City Convention Center, Salt Lake City, Utah. Contact: HPS, 1340 Old Chain Bridge Road, Suite 300, McLean, VA, 22101 (Phone 703-790-1745).
- —July 7-10, 1987. WORLD CONFERENCE ON CHEMICAL ACCIDENTS, Rome, Italy. Sponsored by World Health Organization in association with the International Programme on Chemical Safety in Switzerland and the Istituto Superiore di Sanità in Italy. Contact: World Conference on Chemical Accidents, Secretariat, CEP Consultants Ltd., 26 Albany St., Edinburgh EH1 30H, United Kingdom (Phone 031-557-2478).
- —August 30—September 4, 1987. INTERNATIONAL TOPICAL MEETING ON PROBABILISTIC SAFETY ASSESSMENT AND RISK MANAGEMENT, held at Swiss Federal Institute of Technology, Zurich, Switzerland. Organized by Swiss Nuclear Society in collaboration with European Nuclear Society; cosponsored by Society for Risk Analysis, American Nuclear Society, Commission of the European Communities, plus others. (See story in June newsletter.) SRA contact: Chris Whipple (Phone 415-855-2443). European contact: PSA '87 Meeting Secretariat, % ENS-Secretariat, Monbijoustrasse 5, PO Box 2613, CH-3001 Berne, Switzerland; Telephone (++4131)216111; Telex 912110 (atag ch); Telecopier (++4131)229203.
- —September 15-18, 1987. TOPICAL MEETING ON POPULA-TION EXPOSURES FROM THE NUCLEAR FUEL CYCLE, Oak Ridge, Tennessee. Sponsored by the American Nuclear Society's Environmental Sciences Division and Technical Group for Biology and Medicine and by the Health Physics Society's Environmental Radiation Section. Contact: Rowena Chester, Bldg. 7509, Oak Ridge National Laboratory, PO Box X, Oak Ridge, TN, 37831 (Phone 615-576-2100).
- —October 26-30, 1987. SECOND U.S.-JAPAN WORKSHOP ON RISK ASSESSMENT/RISK MANAGEMENT, Osaka, Japan. Sponsored by National Science Foundation, U.S. Environmental Protection Agency, Osaka University, and the Japan Society for Promotion of Science. Topics include environmental risk assessment, hydrologic extremes, dietary risk assessment (natural and artificial), risk perception and communication, and expert systems. Additional sponsors welcomed. Contacts: Kazuhiko Kawamura, PO Box 6188, Station B, Vanderbilt University, Nashville, TN 37235 (Phone 615-322-2735); Paul Finger Lynes, Craig-Lynes Chemical Management (Phone 615-383-8490).



RISK newsletter is published by The Society for Risk Analysis.

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Note: Contributions to the newsletter should be mailed to one of the following addresses:

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NOTE: As of September 23, 1986, the Society for Risk Analysis had a total membership of 1,351. Of these, 1,232 reside in the United States and 119 live in foreign countries.

FROM THE EDITOR'S DESK.....

THANKS TO MIKE! WELCOME TO LESTER!

During the past year it has been my privilege to work with Mike Gough in the production of this newsletter. It has been a relationship that has been handled entirely by phone calls and letters, since the two of us have never met. Yet I have learned to count on his support and tolerance and know him to be a dedicated member of the society. He has gathered news, contributed articles, offered suggestions, and given criticism in an always palatable form. If you have become aware of consistent improvements in the newsletter, much of the credit goes to him.

But Mike has served his time. When he accepted the job of advisory editor, he placed a limit of one year on his service, and it was decided (by a few of us) that in the future the advisory editor would always be the immediate past president. Thus, Lester Lave now steps into that role. I look forward to working with Lester, as I already have to some extent, and anticipate that he, too, will have ideas about improving the newsletter.

Although Mike's name remains in the masthead for this issue, he would appreciate your *not* sending him any more material for the newsletter. Instead, the material should be mailed to: Lester B. Lave, GSIA, Carnegie-Mellon University, Pittsburgh, PA 15213 (Phone 412-268-8837). You may, of course, also send material directly to me at the address shown in the masthead or call me at my office (Phone 615-482-4640) or home (615-689-5315).

- Lorraine S. Abbott

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