

# TRAVEL ARRANGEMENTS FOR THE AAAS BERKELEY MEETING December 26-31, 1954

In time or in cost, a trip from an eastern city to California is not much more than a **round trip** to a midwestern city. Californians who for years have been attending meetings in the East have told their colleagues that the continental distance is the **same** each way, and that it should be the turn of the Easterners to visit the Pacific Coast.

The Association is planning ways it may assist those who will attend the 121st AAAS Meeting on the campus of the University of California at Berkeley, this December. The possibilities include:

1. Low cost AAAS limousines from Oakland and San Francisco airports and railroad terminals direct to the dormitory or hotel of each delegate.
2. Arrangements for traveling together in AAAS cars on fast trains leaving Chicago, Washington, D. C., and New York.
3. Arrangements for chartering first class DC6, 6B, or 7 planes of scheduled airlines—at prices comparable with air coach travel.

**Note:** In the following table of **round-trip** fares all figures include the new lowered 10% federal tax.

## ROUND TRIPS TO OAKLAND OR SAN FRANCISCO FROM

	Chicago	Washington, D. C.	New York
<b>By Bus</b>	Time: 2½ days \$82.50	Time: 4 days \$104.94	Time: 4 days \$112.31
<b>By Rail</b>	Time: 2½ days — leaving evening, Dec. 24 and morning, Dec. 31	Time: 3½ days — leaving evening, Dec. 23 and morning Dec. 31	Time: 3½ days — leaving evening, Dec. 23 and morning Dec. 31
Reclining seat coach	\$ 99.17	\$147.62	\$156.64
First class	\$139.10	\$204.33	\$222.67
Lower berth	46.20	60.06	63.58
Total	\$185.30	\$264.39	\$286.25
<b>By Air</b>	Time: 7-8 hrs., leaving a.m. or p.m., Dec. 26; returning a.m. or p.m. Dec. 31	Time: 10-11 hrs., leaving a.m. or p.m., Dec. 26; returning a.m. or p.m., Dec. 31	Time: 10-11 hrs., leaving a.m. or p.m., Dec. 26; returning a.m. or p.m., Dec. 31
Air coach (no meals)	\$167.20	\$215.60	\$217.80
Chartered 1st class (meals included)	c. \$178.00	c. \$235.00	c. \$235.00
First class (meals included)	\$239.91	\$312.18	\$332.09

**PLEASE READ ABOVE TABLE, FILL OUT THIS COUPON, AND SEND IT TO**

AAAS TRAVEL — Dr. R. L. Taylor  
1515 Massachusetts Avenue, N.W.  
Washington 5, D. C.

Name .....

Address .....

I shall probably attend the AAAS Meeting in Berkeley. Without obligation I am interested in possible group travel arrangements to San Francisco from:

1. ☐ Chicago ☐ Washington, D. C. ☐ New York ☐ Other city: .....

2. My preferred manner of transport is:

☐ Rail — coach ☐ Air — coach ☐ Bus  
☐ Rail — 1st class ☐ Air — chartered, 1st class ☐ Other  
☐ Air — 1st class

3. I would ☐ return east immediately after the meeting  
☐ like to make a side trip to .....  
☐ remain indefinitely on the Pacific Coast

There are articles on techniques of measurement in two distinct fields: one on the use of photographic emulsions in studying ionizing particles, and one on techniques of element separation in radiochemistry. The former, by Goldschmidt-Clermont, seems to carry much quantitative detail.

The last large category, about 40 percent of the book, deals with the relationships of nuclei and their radiations with more complex systems, from molecules to the bodies of men. One article (by Yankwich) discusses the effects of stable isotopes on the rate and equilibria of chemical reactions, emphasizing carbon and hydrogen. Two deal with radiation chemistry proper; one of these, by Magee, forms an excellent introduction to the general mechanisms involved, while the other, by Willard, is more specifically experimental and summarizes hot-atom chemistry at a more detailed level. Marinelli has a gem of a short piece on dosimetry, pinned to the present physical unit of dose, the erg/gram. Four pieces are devoted to radiobiology, and include a detailed résumé of results concerning the effects of various radiations on the cellular level, on the embryos of vertebrates from fish to man, on specific vertebrate tissues, including the generation of tumors, and last, an unforgettable piece by Hempelmann and Hoffman called rather ironically "Practical aspects of radiation injury."

In this last, the authors dryly and aseptically detail mainly the acute effects of radiation on mankind. Here one can read of the cataracts and the leukemia that followed the Japanese wartime epidemic of fatal radiation injury and of the poor microcephalic children exposed to the bombs *in utero*. The severe hand burns from some 10,000 roentgens to the skin from fission-fragment beta decays, received by five men in tests in Eniwetok, are described. Late effects are discussed, although not much is said about long-time low-level exposure. Workers with radiation ought to read this chapter, to understand the need for precautions. Indeed, since most of the data have been found by study of the victims of deliberate or accidental chain reactions, the chapter is worth study by every technically trained city-dweller, nuclear physicist or not. The table of doses to reactor victims will repay imaginative reading. Perhaps it will help translate the 75 disintegrations per second per milligram counted in sodium from the blood serum of case 3 if a few words remind the reader that this disintegration of the living blood is two orders of magnitude faster than that of the hottest sodium samples made with the usual laboratory radium source. It may help make clear the wider meaning of nuclear science in our times if I go on to say what the authors leave out: that the warm dark red radioactive sample, drawn from the veins of a man who was outwardly robust yet already swiftly dying, was that of my friend and colleague, the gentle, skillful physicist, Louis Slotin. He remains so far the last man on earth to have died from acute radiation injury.

P. MORRISON

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## New Books

- Radiation Biology.** vol. I, *High Energy Radiation*, pts. I and II. Alexander Hollaender, Ed. McGraw-Hill, New York-London, 1954. ix + 1265 pp. Illus. \$17.50.
- College Textbook of Physics.** Arthur L. Kimball. Rev. by Alan T. Waterman. Holt, New York, ed. 6, 1954. xii + 942 pp. Illus. \$7.95.
- The Compleat Strategyst.** Being a primer on the theory of games of strategy. J. D. Williams. McGraw-Hill, New York-London, 1954. xiii + 234 pp. Illus. \$4.75.
- Geography of North America.** George J. Miller, Almon E. Parkins, and Bert Hudgins. Wiley, New York and Chapman & Hall, London, ed. 3, 1954. xi + 664 pp. Illus. \$7.50.
- New Biology,** No. 16. M. L. Johnson, Michael Abercrombie, and G. E. Fogg, Eds. Penguin Books, Baltimore, 1954. 135 pp. Illus. + plates. Paper, \$0.50.
- Wave Motion and Vibration Theory.** Proc. of Symposium in Applied Mathematics of the American Mathematical Society. vol. V. Albert E. Heins, Ed. McGraw-Hill, New York-London, 1954. v + 169 pp. Illus. \$7.
- Aerodynamics.** Selected topics in the light of their historical development. Theodore von Karman. Cornell Univ. Press, Ithaca, N.Y., 1954. ix + 203 pp. Illus. \$4.75.
- Physics of Experimental Method.** H. J. J. Braddick. Wiley, New York, 1954. xx + 404 pp. Illus. \$7.
- Representative Chordates.** A manual of comparative anatomy. Charles K. Weichert. McGraw-Hill, New York-London, 1954. vii + 204 pp. Illus. \$3.50.
- Ethics.** P. H. Nowell-Smith. Penguin Books, Baltimore, 1954. 324 pp. Paper, \$0.85.
- Vegetable Tanning Materials.** F. N. Howes. *Chronica Botanica*, Waltham, Mass.; Butterworths, London, 1953. xi + 325 pp. Illus. \$5.50.
- Science and the Common Understanding.** J. Robert Oppenheimer. Simon and Schuster, New York, 1954. 120 pp. \$2.75.
- Economic Geography.** Clarence Fielden Jones and Gordon Gerald Darkenwald. Macmillan, New York, rev. ed., 1954. xxv + 612 pp. Illus. \$6.75.
- The Foundations of Statistics.** Leonard J. Savage. Wiley, New York; Chapman & Hall, London, 1954. xv + 294 pp. \$6.
- Introduction to Psychiatry.** O. Spurgeon English and Stuart M. Finch. Norton, New York, 1954. viii + 621 pp. \$7.
- Dictionary of European History.** William S. Roeder, Ed. Philosophical Library, New York, 1954. viii + 316 pp. \$6.
- Endemic Goiter.** The adaptation of man to iodine deficiency. John B. Stanbury *et al.* Harvard Univ. Press, Cambridge, 1954. xii + 209 pp. Illus. \$4.
- Dreams and Nightmares.** J. A. Hadfield. Penguin Books, Baltimore, 1954. xi + 244 pp. Paper, \$0.65.
- Molecular Theory of Gases and Liquids.** Joseph O. Hirschfelder, Charles F. Curtiss, and R. Byron Bird. Wiley, New York; Chapman & Hall, London, 1954. xxvi + 1219 pp. Illus. \$20.
- The Judgment of History.** Marie Collins Swabey. Philosophical Library, New York, 1954. x + 257 pp. \$3.75.
- Industrial Stoichiometry.** Chemical calculations of manufacturing processes. Warren K. Lewis, Arthur H. Radasch, and H. Clay Lewis. McGraw-Hill, New York-London, ed. 2, 1954. xi + 429 pp. Illus. \$7.50.
- George Davidson: Pioneer West Coast Scientist.** Oscar Lewis. Univ. of California Press, Berkeley; Cambridge Univ. Press, London, 1954. viii + 146 pp. + plates. \$3.50.