

Report of the 9th International Congress on High-Speed Photography

By CARLOS H. ELMER, *Chairman*

The following official report prepared for publication in the Proceedings of the Congress is followed by some less formal notes from the Society's Editorial Vice-President.

THE INVITATION to hold the 9th International Congress on High-Speed Photography in the United States of America was extended to the International Congress Committee during the 7th Congress at Zurich in 1965. This is the first return of a Congress to the Western Hemisphere since the time of the 5th Congress in 1960. Following favorable response from the International Committee on High-Speed Photographic Congresses at Zurich, planning was begun by the Society of Motion Picture and Television Engineers for presentation of the 9th Congress.

As is customary in the conduct of a major international technical conference of this type, the government of the host nation provided the 9th Congress with substantial assistance in the form of a formal resolution of support by the Congress of the United States, and by aid from the Department of Defense in the provision of such major features as simultaneous interpretation facilities and the preprinting of all technical papers.

The invitation for technical papers produced a most gratifying response of more than 160 papers of excellent quality. To permit full discussion of papers in the technical program, the final size of the week's program was kept to near the 100 level, requiring the rejection of many fine papers which were submitted after the deadline of 15 January 1970. The increase in interest from abroad since the 5th Congress in 1960 is indicated by the fact that 75% of the papers accepted for the final program came from abroad, as contrasted to only 50% in 1960. This interest from abroad was also reflected in the presence at Denver of more than 100 foreign delegates, who joined some 200 delegates from the United States in a very full week of technical presentations and accompanying social events.

Choice of Denver, Colorado, as the site of the 9th Congress was dictated by the desire to hold the meeting during the summer to encourage attendance by university personnel and families of delegates. Thus, a location with a pleasant summer climate and nearby scenic attractions was sought.

The Congress opened on Sunday, 2 August, with a meeting of the International Committee on High-Speed Photographic Congresses, at which time D. Paget, acting as National Delegate for France, extended an invitation for the 10th Congress to be held at Cannes during September 1972. This was accepted by the Committee with thanks. The National Delegate for the United Kingdom, J. Hadland, also announced that he was authorized to state that the 11th Congress might be held in London during 1974, a proposal that was also favorably received by the committee, following determination that the Soviet Union did not wish to repeat its tentative invita-

tion for the 11th Congress that was advanced at Stockholm in 1968.

On Sunday the commercial exhibits were also opened. The addition of four foreign firms to the domestic exhibitors added value and interest to the exhibit. In addition to 38 booths occupied by commercial exhibitors, noncommercial exhibits were provided by the U.S. Naval Ordnance Laboratory and the U.S. Pacific Missile Range, the latter facility providing a powered tracking mount parked in the street adjacent to the Denver Hilton Hotel.

The full program of the 9th Congress began on Sunday evening with a banquet featuring a popular lecture by Professor Harold E. Edgerton and the presentation of awards. Professor Edgerton's talk, "Experiences With High-Speed Photography," was a source of entertainment and inspiration for delegates and their families attending the banquet. A special award was made by Dr. Eugene Turner, President of the Society of Photo-Optical Instrumentation Engineers, in memory of the late Morton Sultanoff. This award was accepted by Dr. Frank Odell, Assistant Director of the Ballistics Research Laboratory at Aberdeen, Maryland, site of Morton Sultanoff's longtime work in the high-speed photographic recording of detonation processes. Other awards, which were presented by Dr. Deane R. White, President of the Society of Motion Picture and Television Engineers, were an SMPTE Fellow Award to Trygve Ramqvist, Chairman of the 8th Congress, and the E. I. du Pont Gold Medal Award of the SMPTE for outstanding achievement in high-speed photography and photographic instrumentation to C. David Miller of the National Aeronautics and Space Administration.

Monday morning, August 3, marked the formal opening of the technical program of the Congress. Since the training of technical workers in our fields of interest has long been a critical problem, the sessions opened with a special panel discussion on the subject of education for careers in these fields. The panel was organized by D. Max Beard, Chairman of the 5th Congress, during his tenure as SMPTE Vice-President for Educational Affairs, and was chaired by his successor in that office, Herbert E. Farmer of the University of Southern California. A report on this panel discussion [will be] found in the *Proceedings*.

With the afternoon session on 3 August the review and discussion of technical papers got under way. As previously mentioned, all papers were preprinted in full, with the expectation that authors' appearances at the podium would be devoted largely to a review of slides and discussion of papers which had already been read by those in the audience. This plan was only partially effective, in my opinion, but it did give the very important advantage of providing every delegate with a complete set of papers that could be taken home for more detailed study immediately upon the conclusion of the Congress.

While these preprints do not provide a substitute for the final *Proceedings* of the Congress, which incorporates all discussion and other valuable data, the preprints do permit an immediate dissemination of much of the technical content of the Congress.

During the 8th Congress at Stockholm in 1968, the Soviet Union made an important contribution to the technical program, providing 25 papers and as many delegates. During that meeting the organizers of the 9th Congress were requested by delegates of the USSR to add Russian simultaneous interpretation as a fourth official language for the meeting in Denver, a request that was re-emphasized in London during the summer of 1969 when a delegation of high-speed photographic specialists of the USSR met with officials of the SMPTE. This was done, and eighteen Soviet papers were accepted for the final program from a total of twenty-three papers submitted. Unfortunately, no delegates from the Soviet Union appeared in Denver to further explain and discuss the papers that were accepted for the program.

While there was an initial feeling that all Soviet papers should be simply cancelled from the program, it was found possible to present the bulk of the Russian papers through the assistance of many volunteers who undertook to present their interpretations of these papers. In particular, it was fortunate that one Russian scientist temporarily working in Ottawa, Canada, on an exchange program, Dr. M. Ya. Schelev, was present, and graciously agreed to present several of these papers. He also aided the editorial committee in smoothing English translations of most of the Russian papers.

Thus, most of these papers from the USSR were presented in some form, although the late withdrawal of the entire Soviet delegation raises questions of some concern to the planners of future Congresses.

The program proceeded smoothly and on schedule, thanks to the efforts of the Associate Congress Chairman for Program, Robert D. Shoberg, and the various Session Chairmen and Associate Session Chairmen he had selected to manage the ten technical sessions. Simultaneous interpretation services were under the direction of Professor Stefan F. Horn of Georgetown University, who also served as Chief Interpreter for the 5th Congress in Washington, D.C.

A social highlight in midweek was the excursion to

Colorado Springs, featuring luncheon at the Flying W Ranch, a late afternoon buffet at the Broadmoor Hotel, and an evening visit to the famed Chapel of the United States Air Force Academy. At the Chapel a brief ceremony was held, during which Dr. Rudi Schall, National Delegate of Germany, presented the second Hubert Schardin gold medal and certificate to Hallock F. Swift of the University of Dayton in Ohio. This ceremony was under the direct supervision of the Associate Congress Chairman for Congress Affairs, John H. Waddell, who also organized the formation of the Committee of Honor of the 9th Congress.

Another social highlight was the Farewell Dinner-Dance, held on Thursday, August 6, in the Grand Ballroom. Good spirits and animation prevailed and international fraternization was at its best.

Availability of preprints of all papers made possible editorial review with authors during the Congress week. This vital function, which greatly accelerates the publication of the *Proceedings*, was directed by the Associate Congress Chairman for Publications, William G. Hyzer, assisted by William G. Chace, Thomas King and Pablo Weinschenk-Tabernero. This process was also aided by another innovation, a series of planning breakfasts and luncheons for authors and Session Chairmen immediately preceding each technical session. Here, authors were reminded of their responsibility to aid the editorial staff in promptly reviewing all discussion that would follow their papers and to otherwise assist the staff in preparing their papers for final publication.

In summary, the 9th Congress is felt to have successfully carried forward the series of conferences in this field which was first initiated in 1952. New features introduced by the 9th Congress included the preprinting of all papers, thus eliminating completely the need for authors to read papers from the podium, and a series of planning meetings for authors and Session Chairmen which appeared to aid materially the smooth progression of papers within each session.

Special acknowledgment is made for the outstanding efforts of the many members of the Denver Arrangements Committee, under the Chairmanship of John I. Newell. These men and women all gave of their services and their enthusiasm to the fullest, and we owe much of the success of the 9th Congress to their efforts.