

# The Role of the Texas AAPT Section in the Formation of the Texas APS Section

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[\(Slide 1\)](#) This year marks the 25<sup>th</sup> anniversary of the formation of the Texas Section of the American Physical Society. It is most fitting that we recognize that historic event at a meeting organized by the Texas Section of the American Association of Physics Teachers, since the first steps in the formation of Texas APS took place at the Austin meeting of Texas AAPT in March of 1981. The older members of the two organizations know Texas APS to be the child of Texas AAPT. However, I suspect that very few people in this room know that Texas AAPT was itself the child of the Texas Academy of Science.

Let me begin this story by describing the state of physics in Texas in the middle of the 20<sup>th</sup> Century, based on my own recollections and also on information contained in a paper [\(Slide 2\)](#) titled, “History of the Texas Section, American Association of Physics Teachers,” by Roy Biser, Herbert Schwetman, and Fred Connell. The body of their paper is posted on the Texas AAPT Web site.

Texas physicists felt geographically and culturally isolated from the national and international physics community back in the ‘50s. The American Physical Society held most of its meetings in New York and New England, with rare forays to culturally-deprived states such as Texas. In the absence of any regional physics meetings, Texas faculty and students were attending meetings of the Texas Academy of Science. However, as Biser *et al* point out, [\(Slide 3\)](#) “...the membership and meetings of the Texas Academy of Science were strongly oriented toward the biological and earth sciences.” This is not surprising, when one considers that, while research involving organisms and geological features may be geographic region-specific, the same cannot be said about physics research.

So, [\(Slide 4a\)](#) in the Fall of 1954 three physics professors, Jim Potter of Texas A&M, Newton Gaines of TCU, and Herbert Schwetman of Baylor, got together to plan the formation of a Texas AAPT Section which would meet annually with the Texas Academy of Science. They convened a group

of 25 high school, junior college, and university physics teachers at San Antonio College on December 11, 1954. (Slide 4b) The group agreed to petition the national AAPT for a section charter. (Slide 5) The charter was approved in January of 1955 and the new Section held its first official meeting in conjunction with the Texas Academy's 1955 meeting.

In 1966 the Texas Academy decided to move their annual meeting to spring, so they did not hold their usual fall meeting. Texas AAPT decided to hold its own independent meeting that fall and, from that point on, held two meetings per year—one in the spring, with the Academy, and one in the fall, independently. In later years the Section dropped its formal ties to the Texas Academy of Science so that the spring meeting became its responsibility as well.

It is clear from the paper by Biser *et al* that Texas AAPT considered the inclusion of research papers in its programs an important service to the Texas physics community. In a list of 11 accomplishments of the Section (Slide 6) we see,

*“2. It has provided an opportunity for faculty members and students of the colleges and universities to report on the physics research being carried on in Texas.”*

The authors go on to point out, (Slide 7) “The only other organization which has sponsored broad-spectrum meetings has been the American Physical Society, but it has not provided meetings of reasonable proximity on an annual basis, and in recent years meetings in Texas or in any of the adjoining states have become quite rare.” In other words, Texas AAPT was playing an important role by providing a regular meeting place for physics research to be presented and discussed.

During the 16 years leading up to the Spring '81 meeting the Section had grown in size and stature, meeting twice annually at colleges and universities around the state. However, there was trouble in Paradise, as some of us oldtimers can testify. More and more research-oriented papers were being presented at what was ostensibly a meeting of physics *teachers*, while the number of pedagogical papers was declining. (Does this sound familiar?) Of course many, if not most, of the Section members wore two hats, one as teacher and one as researcher, and the meetings were a convenient place for them and, more important, their students to present the

results of their research in a professional setting close to home. Registration fees were trivial and travel expenses manageable, even for faculty with limited research budgets.

Something else affecting the Texas physics community was a rapidly-growing high-tech economy in Texas. The semiconductor and petrochemical industries found a very attractive environment in the shadows of the major research universities of Texas. Not only were faculty members available for consultation, but their students were available for employment as industrial physicists.

The need for industrial physicists to have opportunities to meet and exchange ideas about their work was made very evident by the success of a meeting organized by Joe Ham of Texas A&M. ([Slide 8](#)) Joe obtained funding for a topical APS meeting on “Physics in the Petroleum Industry.” He asked me to help with the logistics, since he wanted to have it in a somewhat more attractive environment than any available near College Station. We arranged to hold it in April of 1981 at the resort and conference center on Lake Travis, northwest of Austin. The meeting very well attended, with well over 100 participants, and many of the attendees urged us to make it an annual affair. They told us that the meetings their companies usually sent them to had a very low density of physicists and not very much in the way of physics content.

These were some of the issues floating around when the formation of a Texas APS Section was brought up for discussion by the Executive Council of Texas AAPT at their Spring 1981 meeting Austin. ([Slide 9](#)), and an *ad hoc* committee was appointed to follow up. Robert Beck Clark was named Chair of the *Ad Hoc* Committee, and Len Diana and I were the other members.

Robert Clark got in touch with Bill Havens, APS Executive Secretary, who was very encouraging about the formation of a new section in Texas. ([Slide 10](#)) Let’s zoom in a bit: ([Slide 11](#)). He sent Clark mailing labels for all Texas APS members so that they could be invited to the Fall ‘81 AAPT meeting at TCU. Clark also got a copy of the Bylaws of the New England APS Section to serve a guide for the proposed new section.

The invitation which Clark mailed out on behalf of the Ad Hoc Committee asked all persons interested in the formation of the APS Section to get

together at 2:00 PM on November 13, during the TCU Texas AAPT meeting. There was very little response to the invitation from physicists who weren't already attending Texas AAPT meetings, but this was not unexpected.

The organizational meeting at TCU took place as scheduled. I'll let the minutes, taken by Jim Crawford, describe what took place: [ [\(Slide 12\)](#), [\(Slide 13\)](#), [\(Slide 14\)](#), and [\(Slide 15\)](#) ] Not reported in the minutes, possibly because Jim had to leave the meeting before it adjourned in order to attend a session., was the naming of an Organizing Committee to work out the details for formation of the Section. It consisted of Tom Hudson, C. A. Quarles, me, and Len Diana, Chair.

The chances that a new APS section would succeed were enhanced by a movement in the national office to make a section membership free for any APS member. In January of 1982 APS Treasurer Joe Burton sent Robert Clark a copy of a memorandum about this proposal. [\(Slide 16\)](#) His handwritten note at the bottom of the page, [\(Slide 17\)](#) "This may be relevant to your plans for a Texas Section of APS," was an understatement. Getting Texas APS members to sign up for the new section was going to be a daunting task in any event, but especially if they had to pay increased dues to do so.

Len Diana turned out to be the ideal person to take charge at this stage. He quickly made contact with all of the appropriate national officers of APS, drafted a set of Bylaws, and got the proposed section on the agenda of the APS Executive Committee meeting in Dallas on March 7, 1982 in conjunction with the annual APS March Meeting. The outcome was favorable, as Len's memorandum to the Organizing Committee explained: [\(Slide 18\)](#)

At the noon business meeting of the 1982 Spring meeting of Texas AAPT in San Angelo, [\(Slide 19a\)](#) Len reviewed progress in the formation of the APS Section. At the same meeting, [\(Slide 19b\)](#) I announced plans for the Fall meeting to be held at UT Austin, and that the new Texas Section of APS would meet jointly, if it received final approval by the Council of APS at their April meeting.

Provisional approval was granted by APS, pending some revisions of the proposed Bylaws, and Havens put a notice in the 1982 July/August *Bulletin*

of the APS ([Slide 20](#)) announcing the new Section and its first meeting at UT Austin, and also giving instructions for joining it. Robert Clark reinforced the announcement by sending a clever notice to all APS members in Texas: ([Slide 21](#)) For the benefit of non-Texans in the audience, who weren't required to take a course in Texas History, that's a picture of Sam *Houston*, founding father of the Republic of Texas. The notice points out that not only is Section membership free, but the Section will receive \$2.00 of the member's annual dues.

To my great relief, the first meeting of the Texas APS Section in Austin was a great success, with nearly 300 registrants. ([Slide 22](#)) APS Vice-President Millie Dresselhaus came to Austin ([Slide 23](#)) and announced the formal approval of the Section, presenting a check for \$1,000.00 to Len Diana for organizational expenses of the Section. ([Slide 24](#)) Interim Section officers were elected: Leonard M. Diana, Chairperson; J. David Gavenda, Vice-chairperson; Robert Beck Clark, Secretary-Treasurer; Charles K. Manka, Bowen Loftin, Rogers W. Redding, Ben M. Doughty, and Thomas L. Estle, Executive Committee members. A motion was passed by the two organizations that the AAPT and APS Sections would hold joint Spring and Fall meetings.

As noted earlier, it was now possible to have abstracts for all papers presented at the Section meetings published in the *Bulletin of the APS*. Since APS rules specified that only APS members could submit abstracts, I "submitted" abstracts for AAPT Section members who did not belong to APS.

APS made annual contributions of \$1,000.00 to the Section in addition to the \$2.00 per member rebate during its formative years, but this was before the days of the Internet. Printing and mailing expenses ate up that money very quickly, and those of us who served as Secretary-Treasurer back then were constantly agonizing over the need to make compromises between the widest possible dissemination of meeting announcements and the strictures of the budget. It was decided that a fee, initially set at \$7.00, had to be paid by persons wishing to have their abstracts published, to offset the page charges billed to the Section. Later, when electronic communication and publication became more widespread, the fee was dropped.

It soon became apparent that a single organization (or person) had to be in charge of a joint meeting, so at the '83 Spring meeting ([Slide 25](#)) the

sections agreed that fall meetings would be organized by Texas APS and spring meetings by Texas AAPT. In later years it was found more convenient to have the responsibilities reversed. (Note that the annual joint meeting of the national AAPT and APS was going to be held in San Antonio in January 1984, and the Texas sections would be fully involved in planning the meeting.)

Also announced at that meeting were the results of the Texas APS mail ballot for the first regular Section Officers: [\(Slide 26\)](#)

Note that the first Section Executive Committee included an industrial physicist, Art Thompson from Exxon Production Research Company in Houston. The Executive Committee adopted a policy of including one or two industrial physicists in its membership in order to learn how best to involve that constituency in the active life of the Section. They also agreed to schedule as many of the APS-managed meetings as possible in areas of Texas with substantial numbers of industrial physicists, and to include symposia focused on the industries in the area. (The first meeting, in Austin, had a Symposium on the Physics of Microelectronics.) In later years, “Industrial Sponsors” made very significant financial contributions to the Section to help fund awards for student papers and travel expenses for distinguished physicists speaking at “Frontiers of Physics” sessions.

The Texas Section of the American Physical Society has grown into one of the most successful in the nation, thanks in large part to the symbiotic connection with Texas AAPT. But that’s a subject for another talk; now it’s time for us to listen to some real physics.

I hope that this presentation inspires some of the other old-timers to write down their recollections of the earlier days of physics in Texas. I would be delighted to receive your notes and add them to the archives of the two Sections.

So, on this 25<sup>th</sup> anniversary, I think Mom and Grandma should be proud of how their baby has become a successful, mature adult. They might express it like this: [\(Slide 27\)](#)