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News Release

GRADUATE RESEARCH CENTER OF THE SOUTHWEST

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RELEASE SPECIAL TO AMARILLO MEDIA/Release thru Mr. J. Harold Dunn
and Mr. S. B. Whittenberg



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Graduate Research Center Story -- Advanced Education and Research -- to be Outlined
at Amarillo Club, Tuesday, September 27; Chairman of Governors, President to Speak

DALLAS --

Education and research, in a blend calculated to make a region highly attractive to
technical industry, are the basic elements of a fast-moving story in Dallas.

The effects are being felt across the entire Southwest, as the Graduate Research
Center contributes to the training of young scientists and holds an important place
in national research projects.

Just five years old, the Center is filling its catalytic role under the guidance
of industry and education leaders such as Mayor Erik Jonsson of Dallas and GRC President
Gifford K. Johnson. Mayor Jonsson "triples" as a Center founder, chairman of its
Board of Governors, and chairman of the board of Texas Instruments Incorporated.
Center President Johnson, who formerly was president of Chance-Vought Corp, and Ling-
Temco-Vought, Inc., major aerospace firms, is also general chairman of the Education
Committee, Dallas Chamber of Commerce, and holds six other advisory posts in education.

Chairman Jonsson, President Johnson and Mr. Stanley Marcus, member of the Center's
Board of Trustees, will join in telling the Graduate Research Center story at a
luncheon in Amarillo on Tuesday, Sept. 27. One hundred and fifty guests will hear
about the "Concept and Origin of the Graduate Research Center" from Chairman Jonsson.
He will be followed by Mr. Johnson speaking on the subject "Progress to Date - Plans
for the Future."

"What the Graduate Research Center Means to the Region" will be presented by
Mr. Marcus.

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GRC STORY AT AMARILLO LUNCHEON -2-

Co-hosts for the luncheon, to be held at the Amarillo Club at 12 noon, are J. Harold Dunn, Chairman, The Shamrock Oil and Gas Corporation, and S. B. Whittenberg, Publisher of the News-Globe and Globe-Times.

Both Amarillo men are members of the Center's 84-member Advisory Council. Businessmen and educators in this organization come chiefly from Texas, but also from six other states.

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Most frequent question about the Graduate Research Center is a double-barreled: "What does it do? Who supports it?"

Center objectives, in summary, are to co-operate with universities and colleges of the Southwest, through education and research activities, with the goal of advancing graduate education to a level that compares with leading regions of the nation; also, to develop a basic research institution that can advance knowledge in such fields as space sciences, earth sciences, and life sciences, with emphasis on education beyond the doctor's degree; further, to co-operate with industry and government in teaching, training and research.

It's private, non-profit, with a physical plant investment of more than \$8 million paid for by gifts and grants. Research and education activities, during the past fiscal year, cost \$4,278,360. About four-fifths of this was paid for by a round dozen national research agencies such as National Aeronautics and Space Administration, National Science Foundation, National Institutes of Health, the American Cancer Society and the Atomic Energy Commission. The rest of the operating funds came from private donations.

With plans to expand from 342 people to 700 in the near future, present laboratory and teaching facilities will have to be doubled, at least. Private funding will be sought to accomplish most of this growth.

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Next question is: "How does the Center advance graduate education?" There are several answers. In the first place, graduate students come from their home universities in "one-man" programs, to study and do research for the doctor's degree. They don't get degrees from the Center. Their examinations are conducted at the universities, and degrees are awarded there. The Center provides research fields and its permanent faculty of more than 100 supervises the work of the doctoral candidates.

Expanding on this, the Center joined with six universities and colleges to set up TAGER (The Association for Graduate Education and Research of North Texas) a year ago. TAGER is a separate corporate body to pool the resources -- both physical and faculty -- of its members for graduate study. Six doctoral programs will be inaugurated this fall by the TAGER consortium. With five years, the TAGER schools expect to produce 75 to 100 doctoral graduates a year in the sciences.

Founding members of TAGER are the Center, Southern Methodist, and Texas Christian. Associated in the operations are the University of Dallas, Bishop College, Austin College, and Texas Wesleyan College. Other schools, including state-supported universities and colleges, are being invited to join the program.

Graduate students enrolled at the universities in TAGER gain the advantage of working at any of the locations; faculty members may teach at several. The modern technology of television and rapid communications is being used to link both classrooms and libraries, as a time-saving, teach-in-several-places-at-once move.

The third element in advancement of graduate education is the Center's specialty. This is postdoctoral training, through research. The answer to the question "how do you train a man who already has his doctor's degree?" is that he engages in advanced research under the Center's permanent faculty supervision. It's a close parallel to medical internship and residency.

The "post doc" student, formally called a Research Associate, is appointed to the

Center staff for two years. In that time, he can perfect himself in his field to the point that he becomes attractive to regional universities as a graduate school teacher. The Center now has more than 30 "post docs" in its pool of potential professors; several have moved up to teaching assignments since the program began late in 1962.

The postdoctoral man is also attractive to industrial laboratories as a research leader. In addition, there is opportunity at the Center for the industrial scientist to join the research staff on temporary assignment, for refresher work in his specialty.

For these reasons, several industries have decided to bring their laboratories into close geographic range of the Center, by locating on its spacious suburban campus (1,245 acres) north of Dallas. Another aspect of the Center's current activity is its development of a Technology Park for industrial research sites. The first of these will be occupied by The Western Company of North America within a few months. Two other major companies have made land reservations in the campus area, and several more have found nearby locations.

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In basic research -- pure knowledge-hunting -- the Center faculty has contributed a new scientific model of the solar atmosphere, gained from major instrument flights in interplanetary space (NASA-sponsored); is working on the problem of designing instruments to be put on the Moon by Apollo Astronauts, to measure the ultra-thin atmosphere; has discovered a volcanic province across the floor of the Gulf of Mexico that reverses older ideas of Earth-crust structure there, and has made new discoveries about the physical properties of DNA (dioxynucleic acid), the incredibly long molecules in living cells that "instruct" one cell to function as part of a heart, another as part of a brain.

The effects of particles from the atom's nucleus on living tissue are being measured, with some promise that beams of the pi-meson can be useful in cancer therapy. Other faculty members are attempting to understand why an extra chromosome (a cluster of DNA)

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in human cells causes the disease called "mongolism" in children -- born with low mentality and impaired biochemistry.

There's one last question that really came first in the story: "Who decided that all these things should be done -- or attempted?"

One of those who made the basic decisions -- resulting in the Center's charter-birth on February 14, 1961 -- was Erik Jonsson. The other founders were Cecil H. Green, who is now chairman of the TAGER board, and Eugene McDermott. All are executives of Texas Instruments and its associated companies.

They decided to build the Center because they were faced with unpleasant facts. Briefly, they found that new industry was not attracted to the Southwest because graduate-level training in regional universities was impoverished. Smart young people were going elsewhere to get their doctor's degrees, and staying elsewhere.

The whole picture was one of possible "starvation", in which Southwestern technical industry might fail to maintain its brainpower, let alone increasing it. The competition for top hands in research was growing, and some powerful new Southwestern attraction was badly needed.

The founders' answer was GRC, built "from the top down" as a graduate university with an overwhelming dedication -- to advancing graduate education by all the co-operative means it can muster; at the same time, serving industry through its fundamental research, and the production of the ideas that may generate new industry.

The founders had seen some examples of the linkage between advanced education and the basic economy of a region; notably, the concentrated industrial area on Boston's outer loop highway, and around Stanford in the west, all based on the presence of university brainpower. They decided it was worth the try, and backed their decision with the initial money guarantees that were needed to get off the ground.

GRC STORY AT AMARILLO -6-

As a forthcoming magazine (Southern Living) article puts it: "the Center's goals are educational, with a high flavor of economics; to build brains that highly technological industry needs, and the system to train them, so that industries will get on the super-highway to the Southwest to bask in the intellectual as well as the natural sunshine. And, to attract more scholarly people to teach and do research, within universities and industry, seeking knowledge and new product ideas."

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