

REMARKS BY GEORGIA TECH PRESIDENT G. WAYNE CLOUGH
Present Distinguished Professor Award, Faculty/Staff Honors Luncheon
April 6, 2000

When those of us who are alumni of Georgia Tech think back to our student days, the value of the faculty who taught us comes into clear focus. Our faculty are the heartbeat of the education process, the key to shaping our students into productive citizens, and the means to achieving excellence as a university.

So I join Jeff Streater in thanking the Classes of 1940 and 1934 for their generosity in supporting Georgia Tech's most distinguished awards to recognize and honor outstanding faculty. The Class of 1934 makes possible the Distinguished Professor Award, which, as Mike Thomas has noted, is the most prestigious honor presented to a faculty member by the Institute. And one of the distinct pleasures of being President is the opportunity to present it each year.

This year the Distinguished Professor Award goes to Dr. William L. Chameides, Smithgall Institute Chair and Regents Professor in the School of Earth and Atmospheric Sciences. And he is an important part of why that school ranks second in the United States.

Dr. Streater says the Faculty Honors Committee considered three areas – teaching, research and service – and Dr. Chameides' record reflects absolutely stellar performance in each of these areas. His students and former students hold him in very high regard; his research has had a profound impact both locally and internationally; and his professional service has included advising the offices of the Governor and the White House on critical environmental issues.

Bill Chameides started out in physics, and stumbled almost inadvertently on atmospheric science as a graduate student at Yale, when he spent a summer modeling phytoplankton blooms in the ocean. Looking back, he says it was serendipity.

He completed his PhD at Yale, then held faculty positions at the University of Michigan and the University of Florida before coming to Georgia Tech. This year he celebrates his 20th anniversary at Tech. He is a fellow of the American Geophysical Union, and was elected to the National Academy of Science in 1998 – making him one of only three Georgia Tech faculty to be a member of this prestigious organization. He is the author or co-author of more than 80 scientific publications, and his two most recent books were published 1997.

For most of us, entering Bill Chameides' world would be like tumbling with Alice down the rabbit hole into Wonderland, or embarking with Gulliver on his travels, because his research is simultaneously as tiny as individual molecules and as huge as global weather systems. Even as he examines individual tropospheric ozone molecules, he is placing them in the context of the massive biospheric cycles of the Earth's atmosphere.

Here in Atlanta, Dr. Chameides is in the atmospheric scientist's version of hog heaven, because Atlanta is second only to Houston among American cities in producing ozone, which he studies.

Many Atlantans think of ozone in terms of automobile exhaust fogging up the air and creating a haze, but in reality ozone is clear and colorless. What gives us the smog that we see hovering over downtown is microscopic particles floating in the air, and Bill Chameides studies them, too – to see what they are and where they come from, to find accurate ways to measure them, and to discover if there is any connection or interaction between them and the ozone molecules.

He is the chief scientist of the Southern Oxidants Study and director of the study's Southern Center of the Integrated Study of Secondary Air Pollutants. He is also director of the Atlanta SuperSite Project, located across Northside Drive from campus. It is the first of five regional Environmental Protection Agency test sites for advanced investigations into fine airborne particles.

Atlanta is not Bill Chameides' only sphere of study. He chairs the National Research Council's Committee on Ozone Forming Potential of Reformulated Gasoline, and is co-chair of the Synthesis Team for the North American Research Strategy for Tropospheric Ozone, which includes scientists from Canada, the United States and Mexico. He is also the USA study director for CHINA-MAP, an international research program that is studying the effects of environmental changes like air pollution on China's agricultural production. This is not only a very complicated interdisciplinary problem, but also one of fundamental, practical importance.

And the practical side of Dr. Chameides' knowledge and work is recognized in the political realm, where he has served on the Governor's Environmental Advisory Council and the Vice President's Environmental Task Force.

Bill Chameides says that what gives him the most satisfaction about his work is its practical applications for the quality of the air that all of us breathe and the quality of our health and our lives. And his ability to connect really fundamental scientific research and questioning with a broad range of practical applications impressed the Faculty Honors Committee.

Associate Dean Richard LeBlanc, who chaired the committee, said, "His best-known papers have been ones that have challenged accepted thinking in his discipline. They have been about scientific topics that were immediately applicable to public policy issues like regulation of auto emissions. His papers have stimulated much debate and further research, which have ultimately shown that his original ideas were right."

In the classroom, his students also appreciate his ability to make practical sense of highly sophisticated concepts and research. He conveys to them the same qualities that make him an outstanding scientist – critical thinking, self-criticism, persistence, and a knack for keeping an eye on the big picture while at the same time paying close attention to details. His students also enjoy his sense of humor, and Dr. Chameides himself has had to admit to being something of a ham who enjoys being in front of a class of students and making them laugh.

On behalf of Georgia Tech, the class of 1934 and the Faculty Honors Committee, it is my great pleasure to present Dr. William L. Chameides with this year's Distinguished Professor Award.