

## Dr. Ken Schepler ('71) Honored as a Fellow of the Air Force Research Laboratory



In September 2009, Dr. Schepler, a member of the first Briggs graduating class was named a Fellow of the Air Force Research Laboratory. The citation he received reads:

Dr. Kenneth L. Schepler, Principal Scientist with the AFRL Sensors Directorate, is an internationally recognized leader in the development of solid-state laser sources for military applications including infrared missile countermeasures (IRCM), eyesafe laser radar for combat identification, and remote sensing with over 30 articles in peer reviewed journals and over 50 conference presentations. He performs leading research on the spectroscopy, lasing efficiency, and optical properties of solid-state lasers and nonlinear materials. He has solved the key infrared laser issues that made active aircraft protection possible. His work produced lasers that can operate anywhere in the 2-5 micron wavelength region, at multiple atmospheric transmission windows simultaneously, at room temperature, at high repetition rates reliably and at low cost, all IRCM requirements.

Dr. Schepler has made a major impact on the laser technical knowledge base through his and his team's research. An objective measure of this impact is the growing total of 270 citations of his publications. He has received major honors and awards. These include being elected Fellow of the Optical Society of America in 2000, the 1996 and 2009 Samuel Burka awards by the Sensors Directorate for the most outstanding technical achievement and the 2000 Charles Ryan award by the Sensors Directorate for the most outstanding research development. Dr Schepler is currently serving as a Topical Editor for Applied Optics and served as editor of the IEEE Journal of Selected Topics in Quantum Electronics issue on Progress in Solid-State, Fiber, and Tunable Sources.

During his AFRL tenure, Dr. Schepler has helped transition basic research to use in operational IRCM systems. He has provided extensive collaboration and consultation with international, DoD, national laboratory, university, and industry experts on solid-state laser and nonlinear technology. He served for 13 years as Chairman of The Technical Cooperation Panel on Laser Technology and continues to serve as Air Force national representative collaboratively developing advanced laser technology. His leadership and insights have led to advanced development of quasi-phasematched frequency conversion materials such as periodically poled lithium niobate and orientation patterned gallium arsenide, key components for IRCM-required powers and wavelengths. His research achievements in the areas of infrared laser devices and nonlinear frequency conversion devices as well as his leadership and vision in the laser and electro-optics community have led to currently fielded electro-optic systems on operational aircraft and will continue to provide major advances in future electro-optic sensor systems.