Development of airborne 2-μm coherent lidar for CO2 and wind measurements. Shoken Ishii, Kohei Mizutani, Philippe Baron, Hironnori Iwai, , NICT (Japan); Yoshihiro Asawaka, Teiji Kase, Tsutomu Murayama, NEC Co. (Japan); Tetsuo Shiina, Takashi Imaoku, NEC Engineering Ltd. (Japan); Takahiro Ishikawa, Nippon Aleph Co. (Japan); Toshikazu Itabe, NIC (Japan); Kazuhiro Asai, Atsushi Sato, Tohoku Institute of Technology (Japan); Motoaki Yasui, NICT (Japan); and Kenichi Kurata, NECE (Japan).

ABSTRACT

National Institute of Information and Communications Technology (NICT) has made great efforts in order to develop a ground-based 2-μm coherent lidar for CO2 and wind measurements. Experimental CO2 and wind measurements were carried out to evaluate the performance of the ground-based 2-μm coherent lidar. NICT started third 5-year middle term program (FY 2011-2015) in April 2011, and our former research group was reconstructed as “Remote Sensing Fundamentals Laboratory”. Our laboratory started to develop a new airborne 2-μm coherent Doppler lidar in 2011, based on the ground-based 2-μm coherent CO2/Wind lidar. In the paper, we present development of the new airborne 2-μm coherent lidar.