This presentation reports on Between Flight Programs for TODWL, since ONR has encouraged use of assets of TODWL to be used between flights provided no conflicts. A trailer has been purchased to house the lidar, and CTI contracted to integrate the hardware. The next TODWL flights probably will occur in February 2003, so rapid integration and breakdown capability are needed. Shown was how the TODWL scanner is fitted to the trailer. Planned operations include: study of forest canopy energy exchange, cloud dynamics in the boundary layer (BL), engineering checkout exercises for VALIDAR and GLOW in collaboration with NASA, investigations of marine BL and coastal circulations (sea breeze development), and support for controlled burning by the US Army. Several upgrades are being considered, among them: new conductively cooled transceivers, a new data system, and a cockpit display of DWL data.