In September we received additional 15K from MD for the project. The total funding received for the TPF-5(164) study so far is $180,000. In this reporting period research in the fish passage culvert flume focused on setting up the 3-dimensional (stereo) Particle Image Velocimetry (PIV) system. This technique is used to measure the boundary layer velocities in the fish passage culvert flume. 3D PIV uses two cameras that are pointed with different angles towards a laser light sheet. The water supply tank of fish passage culvert flume is seeded with microscopically small, highly reflective particles. Two subsequent images and an algorithm based on statistical probability are used to determine the speed and the direction of the moving particles. This has to be done for both recording planes (cameras). Trigonometric functions are use to merge the two recording planes and to get the 3-dimensional velocity distribution in a cross section of the culvert. In the period from 7-01-08 to 9-30-08 we received 15,000$ and spent $ 30,624.52.