

Delta Island/Levee Proposed Deformation Monitoring Plan

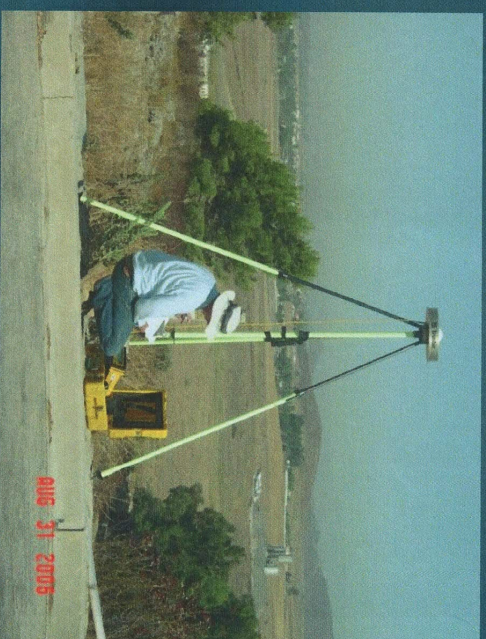
Field Survey Team

1. Maintain daily visual inspections by lease holder and RD superintendent. Continue MBK surveys every 5 years
2. Measure CORS and Primary Control monuments on each island twice a year (October and April)
3. Terrestrial mobile 3D scanning of levees twice a year (October and April)
4. Aerial Lidar/Photogrammetry of islands and levees every 5 years (by aerial consultant)



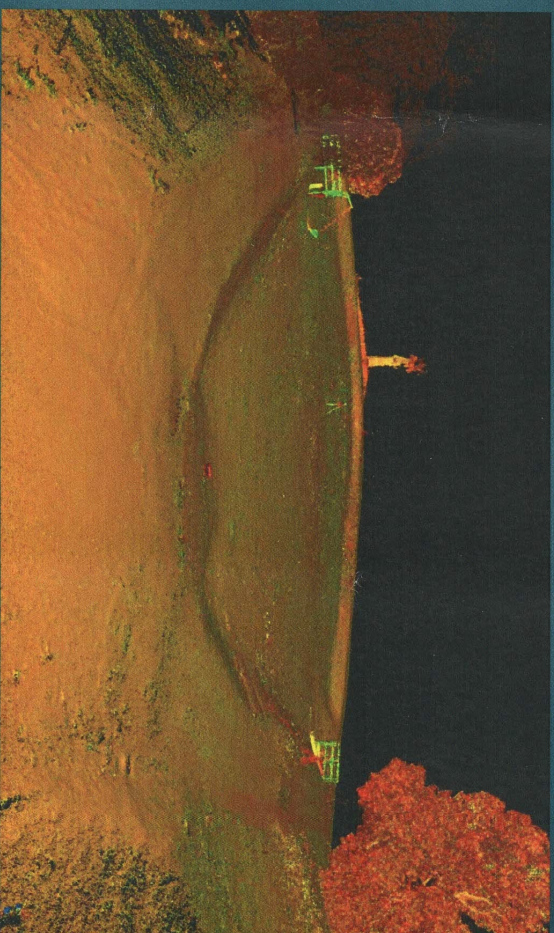
2. Measure CORS and Primary Control Survey Monuments

- Measure primary control network using GPS constrained to Continuous Operating Reference Stations (CORS) twice a year (October and April)
- Compare measurements to initial and previous coordinates and elevations to detect and report horizontal and vertical movement



3. Terrestrial Mobile 3D Scanning of Levees

- 3D mobile scanning operation tied to primary control network
- Measured twice per year (October and April)
- Provides 3D as-is visualization and monitoring data sets for each levee (point cloud & high resolution imagery)
- Compare data to previously measured levee scans for each island



4. Aerial LiDAR/Photogrammetry (by consultant)

- Aerial measurements tied to primary control network
- Aerial repeated every 5 years
- Digital ortho-rectified photographs for comparison/inspection
- Supplements the mobile 3D scanning measurements
- Used for regional, large scale and urgent monitoring after a possible event (earthquake)

