**Velodyne Case**

Data: point 1 of PoseData\_1.mat

Parameters: Updated\_VehicleParameters\_and\_SensorParameters.m

Transformed\_Point\_VelodyneCoord = TransformMatrix\ENUPoint

*Transform matrix to transform ENU Point to Velodyne Coordinates*

TransformMatrix =

Mtransform\_Vehicle\_translate\*Mtransform\_GPS\_Hemisphere\_SensorPlatform\_Rear\_translate\*Mtransform\_Lidar\_Velodyne\_Rear\_translate\*Mtransform\_Vehicle\_zrotate\*Mtransform\_Vehicle\_yrotate\*Mtransform\_Vehicle\_xrotate\*Mtransform\_GPS\_Hemisphere\_SensorPlatform\_Rear\_zrotate\*Mtransform\_GPS\_Hemisphere\_SensorPlatform\_Rear\_yrotate\*Mtransform\_GPS\_Hemisphere\_SensorPlatform\_Rear\_xrotate\*Mtransform\_Lidar\_Velodyne\_Rear\_zrotate\*Mtransform\_Lidar\_Velodyne\_Rear\_yrotate\*Mtransform\_Lidar\_Velodyne\_Rear\_xrotate;

Ex: