The purpose of this document is to instruct how to properly place a UTM/MGRS grid on a map in ESRI/ArcMap, specifically the layout view. By adding a grid in this manner, the grid is not a GIS layer. The grid can, however, be manipulated cosmetically by altering grid and line color and weight.

Open ArcMap and import desired map data. Since the grid is a UTM grid, the map must be set to the UTM projection for the UTM zone and hemisphere that correspond to the coverage area. If the UTM zone and hemisphere are not known, it can be calculated using Geotrans. If there are known latitude/longitude coordinates for that area of the map, they can be entered into Geotrans and converted to UTM. Part of the UTM coordinate relates to the zone and hemisphere. Once the zone and hemisphere are known, go to View>Data Frame and select the Coordinate System tab. Choose Predefined->Projected Coordinate Systems>UTM>WGS84. In the list of UTM zones and hemispheres, choose the one for your area of interest. Ignore the choices using ‘Complex’ UTM Zone in their title.

Under the Projected Coordinate Systems folder, scroll down to the UTM folder and select WGS 1984.
Scroll though the WGS 1984 folder to find the zone in which your area of interest resides. Pay attention to N vs. S representing the hemisphere.

After the coordinate system is set up, add additional feature layers, pan, zoom and apply any cosmetic adjustments to obtain the desired map ‘look’ to your view.
Select the Layout View button or go to the top and select View then Layout View.

Go to View>Layer Properties and select Grids tab, then select New Grid…
Select the Measured Grid radio button and enter a grid name. Select Next.

Select the X and Y axis interval. Appearance and Style options can be selected if needed, but can be modified later. Select Next.
Use default values. Select Next.

Ensure ‘Store as fixed grid’ under Grid Properties is selected. Select Finish.
Select Style…

Select the MGRS Grid template that best describes the scale of your end product. Select OK.
Select OK and your grid will display in the layout view.

Here is the map display with the grid.
Modifications can be made to the grid by going back to Data Frame Properties and selecting your grid under the grids tab, and clicking the Style button and/or Properties button, ex. turn off ladder labels.

The MGRS tab allows for selection to show Ladder Labels and associated properties and well as 100,000 meter Grid Square Identification and associated properties. Check the boxes to display each.

Please contact the Coordinate Systems Analysis Branch by phone at 314-676-9124 or by email at coordsys@nga.mil for help with problems or unusual grid labeling or creation issues.