

```
#basic graph
```

```
reset
```

```
set termoption enhanced
```

```
#font
```

```
set title font ",16"
```

```
set key font ",12"
```

```
#Define Variables
```

```
usaDecX=1776
```

```
usaDecY=3
```

```
railX=1811
```

```
railY=3
```

```
civilX=1861
```

```
civilY=3
```

```
carX=1886
```

```
carY=3
```

```
ww1X=1914
```

```
ww1Y=5.5
```

```
ww2X=1939
```

```
ww2Y=6
```

```
moonX=1969
```

```
moonY=17
```

```
sovietX=1990
```

```
sovietY=12
```

```
set title "Law Dome Ice Core Data: Growth Rates of CO_{2}, CH_{4}, and N_{2}O\n [events  
labeled solely for time perspective]"
```

```
set autoscale x
```

```
set xrange [1700:2004]
```

```
set xtics 50
```

```
set mxtics 5
```

```
set mytics 2
```

```
set zeroaxis
```

```
set origin 0.0, 0.0
```

```
set key at 1715, 17 top left
set key spacing 1.5
set key noautotitle
```

```
#Add lines at event dates
```

```
set arrow 1 from usaDecX,usaDecY to usaDecX,0 nohead
set arrow 2 from railX,railY to railX,0 nohead
set arrow 3 from civilX,civilY to civilX,0 nohead
set arrow 4 from carX,carY to carX,0 nohead
set arrow 5 from ww1X,ww1Y to ww1X,0 nohead
set arrow 6 from ww2X,ww2Y to ww2X,0 nohead
set arrow 7 from moonX,moonY to moonX,0 nohead
set arrow 8 from sovietX,sovietY to sovietX,0 nohead
```

```
#Add labels
```

```
set label "USA Declaration\nof Independence" at usaDecX,usaDecY rotate by -45 right
set label "First Railroad" at railX,railY rotate by -45 right
set label "American Civil War" at civilX,civilY rotate by -45 right
set label "Patented Petrol\nPowered Car" at carX,carY rotate by -45 right
set label "World War I" at ww1X,ww1Y rotate by -45 right
set label "World War II" at ww2X,ww2Y rotate by -45 right
set label "Moon\nLanding" at moonX,8 rotate by -45 right
set label "Soviet\nUnion\nFalls" at sovietX,sovietY rotate by -45 right
```

```
#plot
```

```
plot "law2006.csv" using 1:3 title "growth rate of CH_{4} (ppb/yr)" with lines lw 2, \
"law2006.csv" using 1:7 title "growth rate of CO_{2} (ppm/yr)" with lines lw 2, \
"law2006.csv" using 1:10 title "growth rate of N_{2}O (ppm/yr)" with lines lw 2, \
0 with lines lc rgb '#000000'
```