

```

simFatal<-function(EMin,SmpHrKM2,ExpFac,
  aPriExp=0.9776543,bPriExp=2.777427,aPriCPr=1.191613,bPriCPr=176.6611){

  require(rv)

# Update the exposure prior
aPostExp<-aPriExp+EMin
bPostExp<-bPriExp+SmpHrKM2

Exp<-rvgamma(n=1,aPostExp,bPostExp)
CPr<-if(bPriCPr==0){
  aPriCPr
} else {
  rvbeta(n=1,aPriCPr,bPriCPr)
}
Fatalities<-ExpFac*Exp*CPr
attr(Fatalities,"Exp")<-c(Mean=rvmean(Exp),SD=rvsd(Exp))
return(Fatalities)
}

plotFatal<-function(Fatalities,probs=0.8,PlotHist=TRUE,
  xlim=NULL,xlab="Collisions",ylab="Density",# bty="o",
  col="red",add=FALSE,...){
  require(rv)

Names<-if(is.null(names(Fatalities))) 1:length(Fatalities) else
  names(Fatalities)
Smry<-RVSmry(Names,Fatalities,probs=probs)
ColIdx<-grepl("CI",colnames(Smry))
CIs<-Smry[,ColIdx]

if(!add){
  if(is.null(xlim)) xlim<-c(0,1.1*rvquantile(Fatalities,probs=0.99))
  rvhist(Fatalities,xlab=xlab,ylab=ylab,
    xlim=xlim,freq=FALSE,# bty=bty,
    ...
  )
}

lines(density(as.numeric(Fatalities[[1]]),bw="sj"),col=if(add) col else
"blue")
abline(v=Smry$Mean,col=if(add) col else "black")
abline(v=CIs,col=col)
invisible(NULL)
}

```