

Live
Aviation
Noise
Pollution
Monitoring
Project

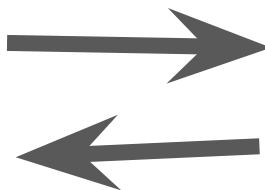
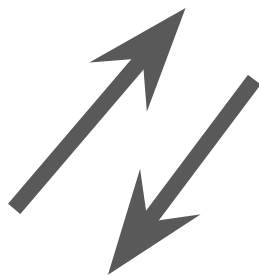
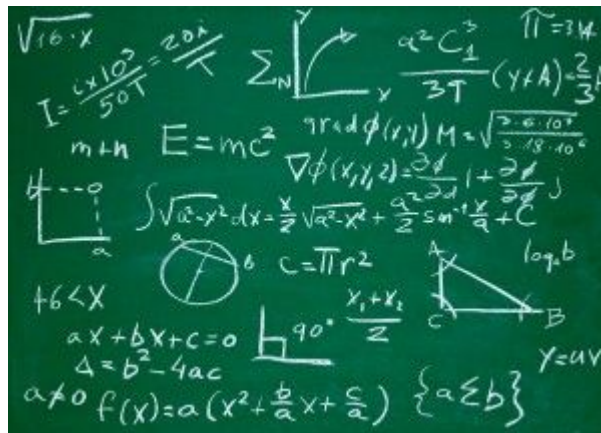
LANPMP





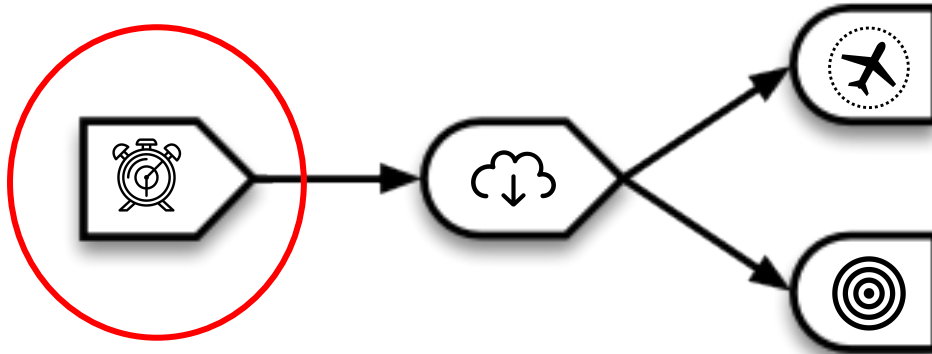
HTML





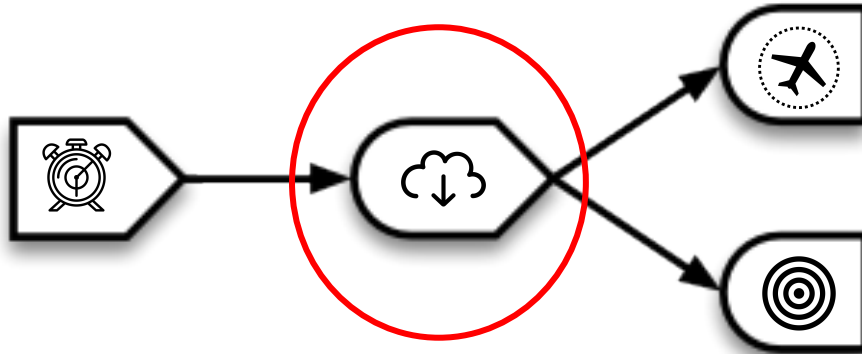
Server

```
invalidata <- reactive({  
  invalidateLater(as.numeric(input$interval)*1000, session)  
})
```



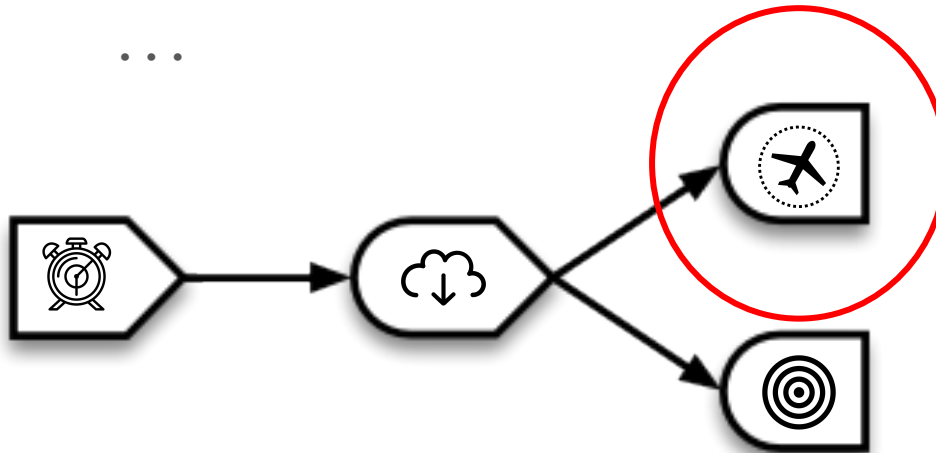
Server

```
PlaneData <-  
getPlaneData(sprintf("lamin=%s&lomin=%s&lamax=%s&lomax=%s",  
boundaries$south,boundaries$west,boundaries$north,  
boundaries$east))
```

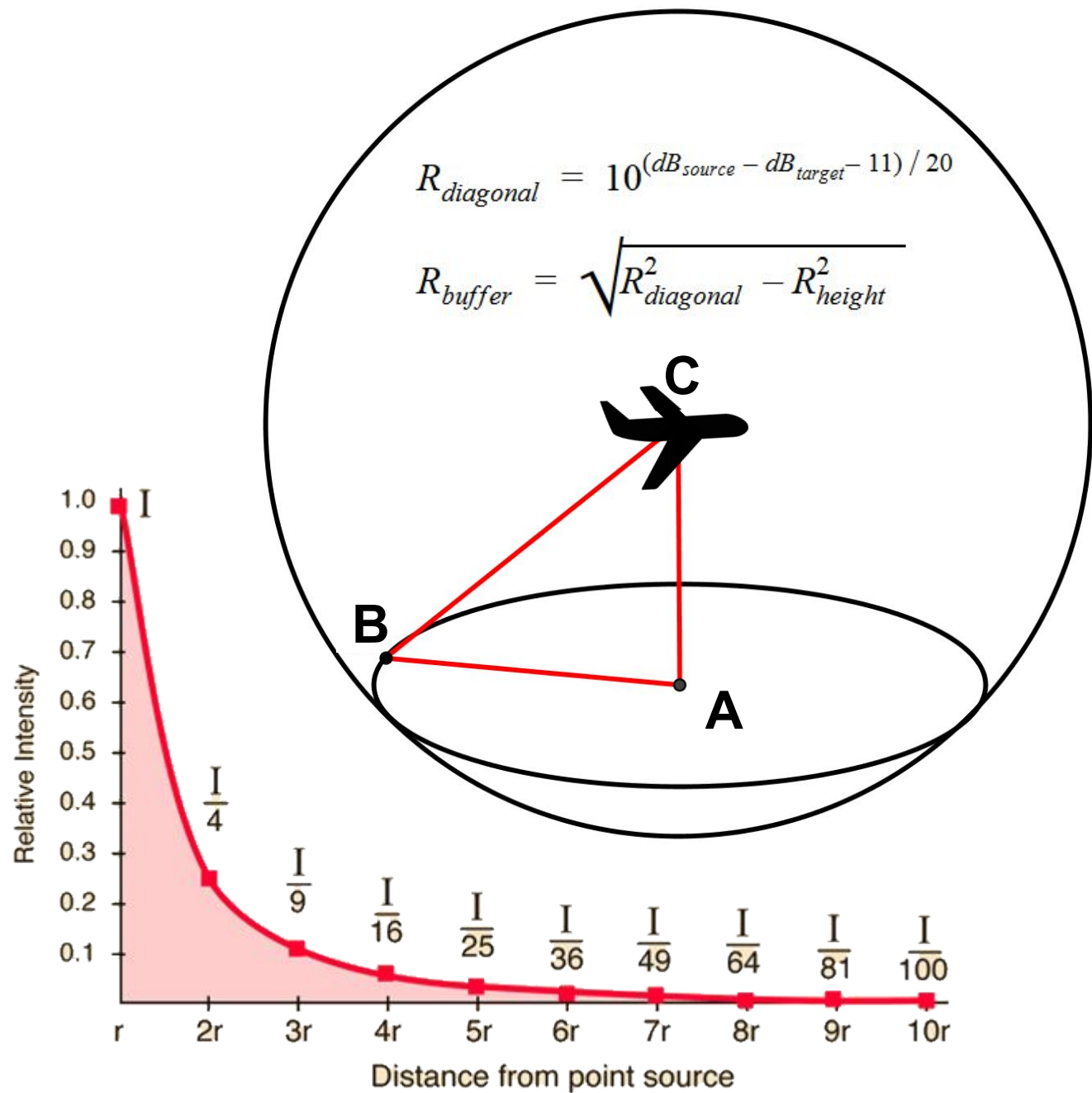


Server

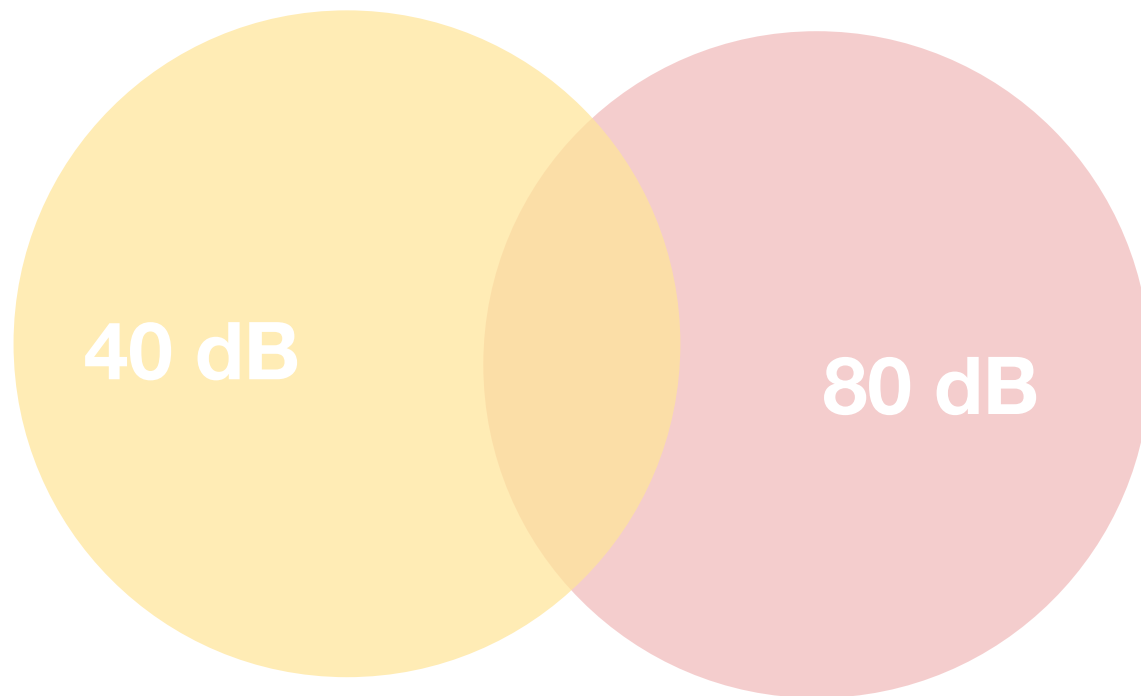
```
leafletProxy("map", data = data) %>%  
  registerPlugin(plugin = rotatedMarker ) %>%  
  clearMarkers() %>%  
  addMarkers( data = data,  
             label = data$callsign,  
             ...
```



Logic

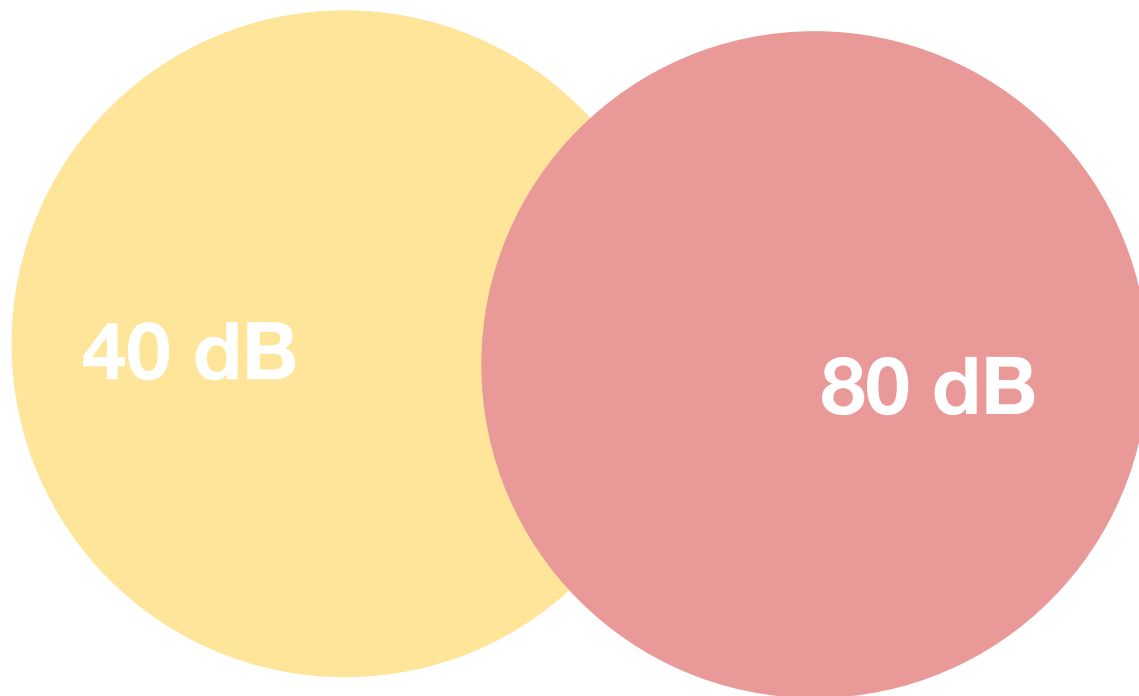


Logic



$$L = 10 \log_{10} \left(\sum_{i=1}^n 10^{(L_i/10)} \right)$$

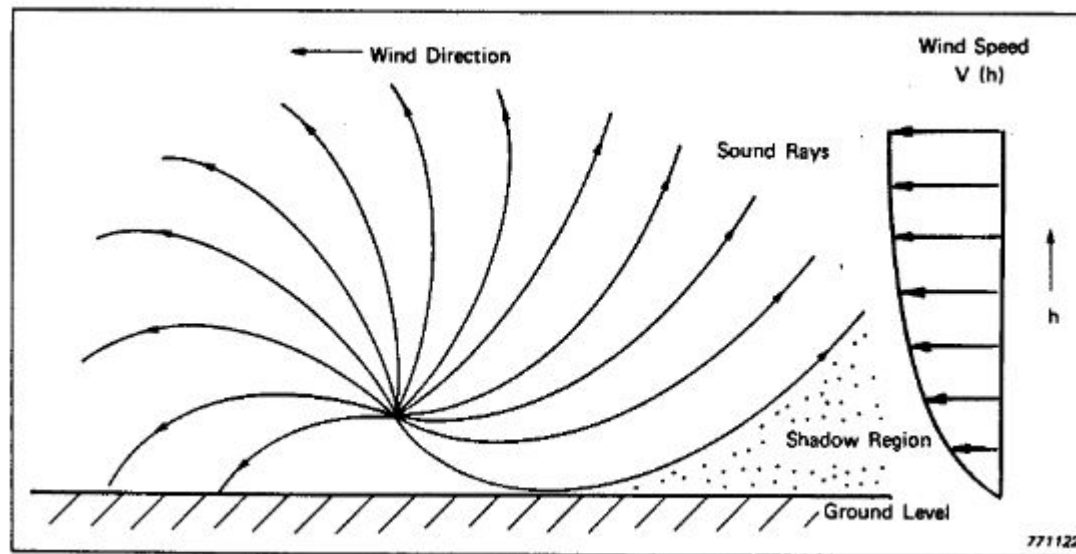
Logic



$$L = 10 \log_{10} \left(\sum_{i=1}^n 10^{(L_i/10)} \right)$$

Lessons

- Reactive Programming
- Sound is affected by wind in a weird way



8

6

4

2

0



getting live data about
airplane height, velocity
and speed, anywhere in
the world 24/7

