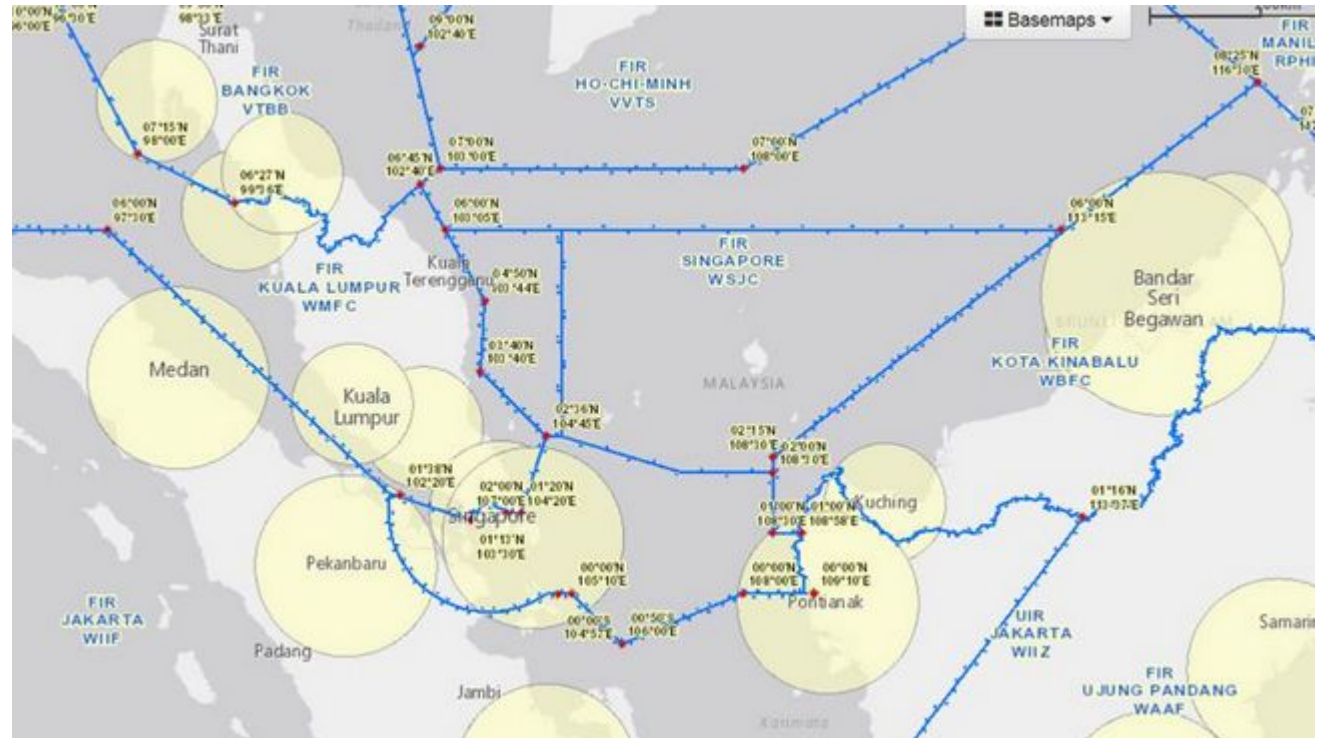


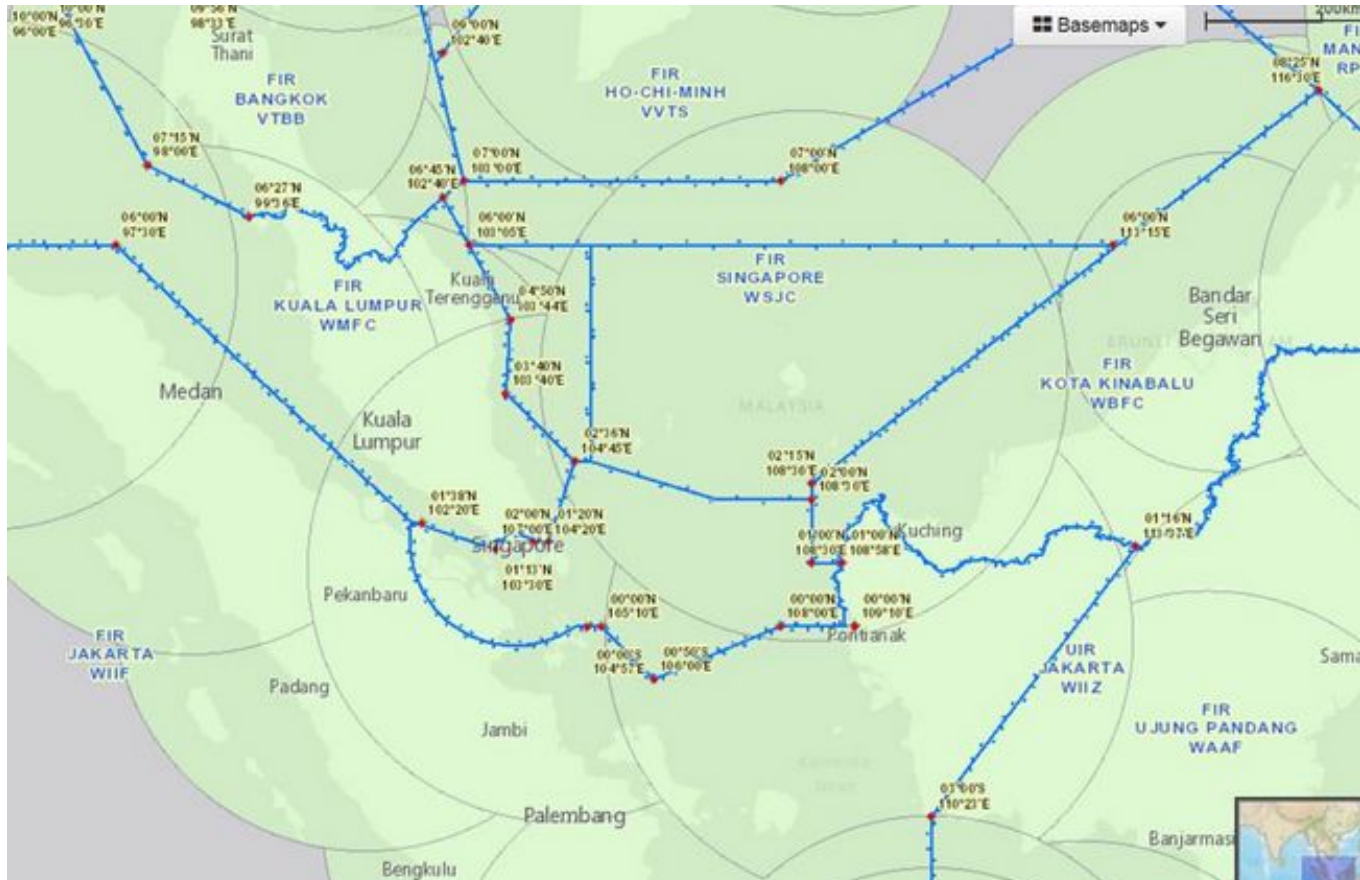
# MH 370

**PROBLEM STATEMENT: How can you create and validate a surveillance system to track airplanes?**

On March 8, 2014, the Malaysia Airlines flight 370 went missing over the South China Sea. Could an improved surveillance system have prevented this issue? You will propose an updated surveillance system in order to mitigate issues like the lost MH 370 flight. Research existing systems including range and cost to determine some solutions. You will present to a government air traffic safety board. International Civil Aviation Organization



## Coverage with Transponders On



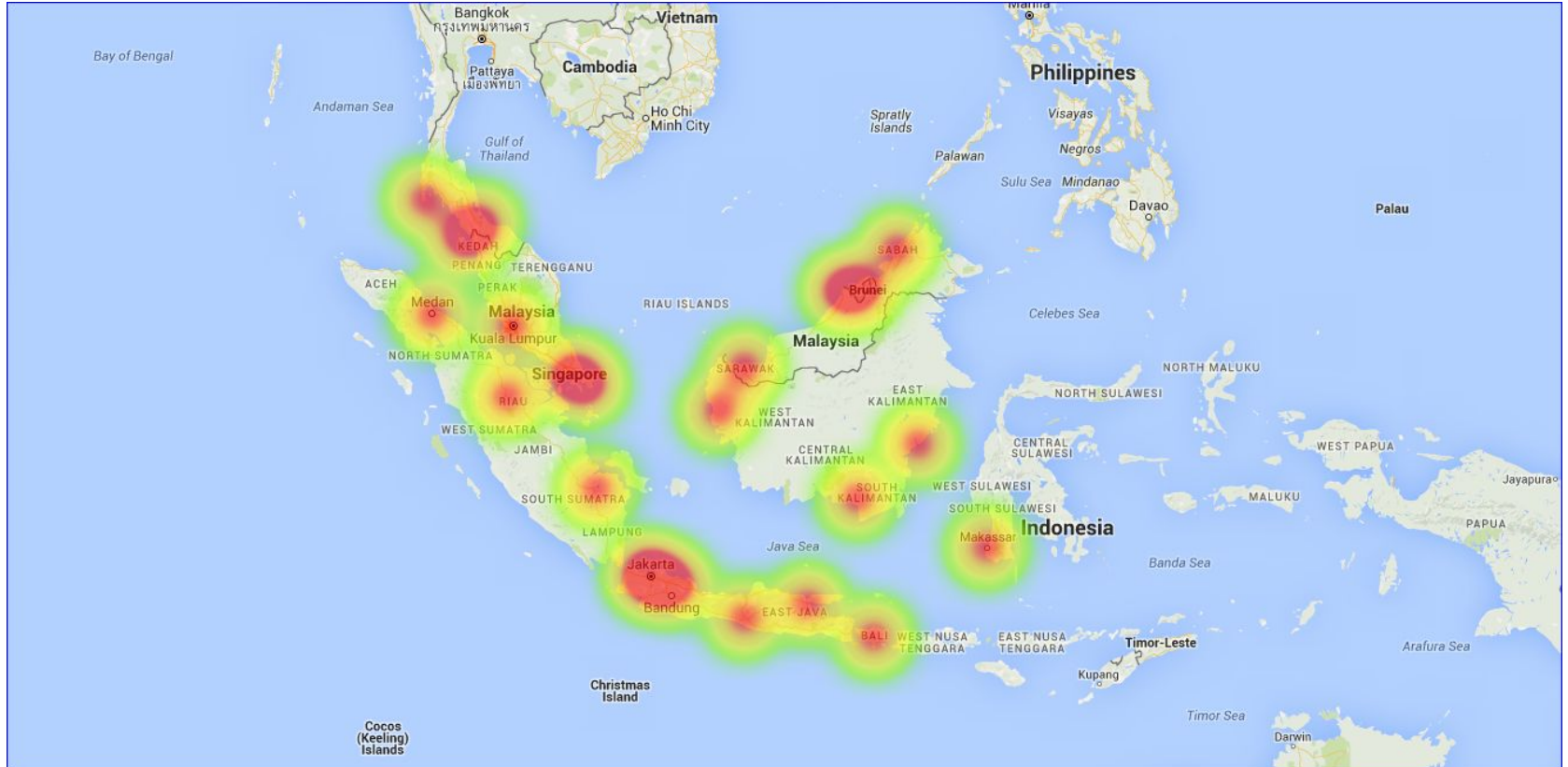
# Day Two

Using Arduinos to simulate a radar system

# Day three

How GPS works since transponder was turned off

# Existing Land-Based Radar



# Your Budget

	s-band is frequency of radar 60 Nautical Miles	L-band 160 NM	L-band 220 NM
airport	\$6 million(upgrading airport from 60 to 160 is \$3m)	\$7.5 million	
land	8.5(upgrading airport from 60 to 160 is \$4m)	\$10.5	
Buoy based sea platform		\$18 m	
Air (blimp or balloon)			25.5 m