

# AMBERnews

Tests and fixes down in  
Argentina during the  
Collaboration Meeting  
Malargue, Nov.2011

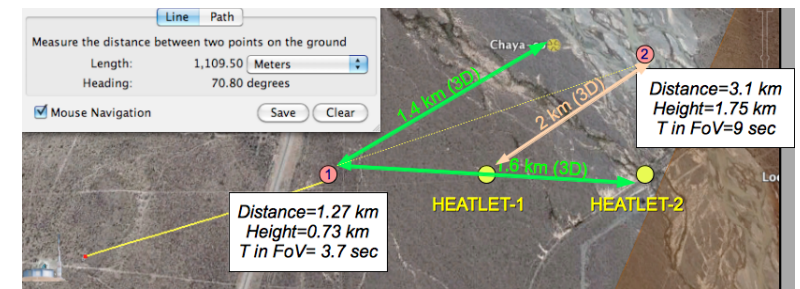
Roberto reporting

Rishi (+Patrick and  
Nathan) in action ...



UH MANOA , weekly meeting 11/22/11

# Amber test with a 4GHz source



Rishi, Patrick, Nathan have tested the trigger timing during the previous week placing the 4GHz source on Coihueco terrace.

CDAS was modified to trigger Amber on reception of a trigger from **only one** tank (Tanguito Jr).

The gate DOES NOT come from the AND of Chayaco, Tanguito Jr, and Valentin Jr

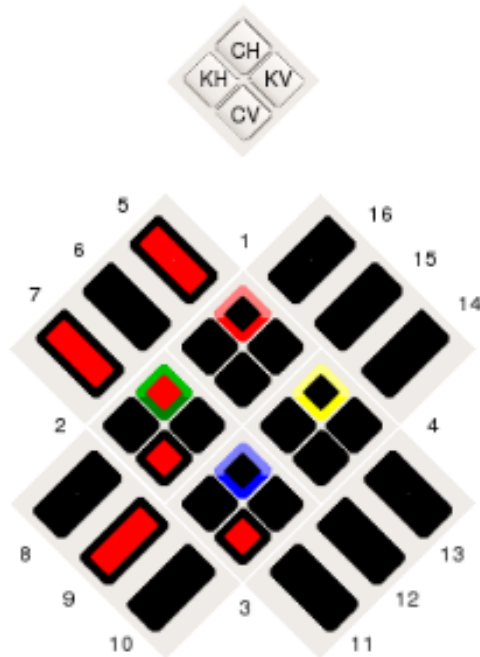




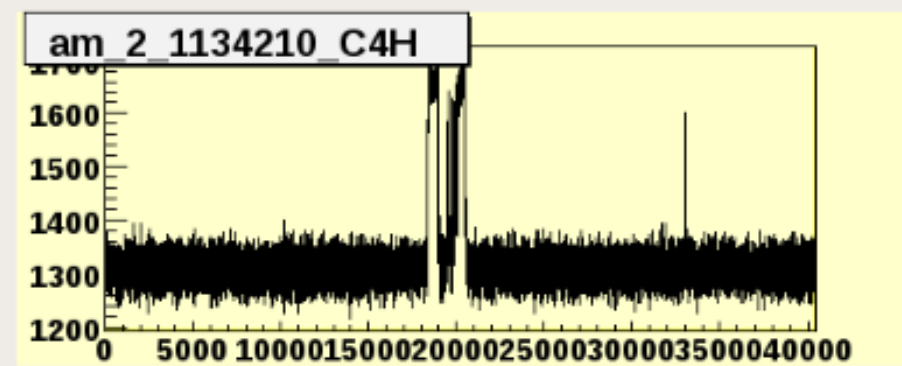
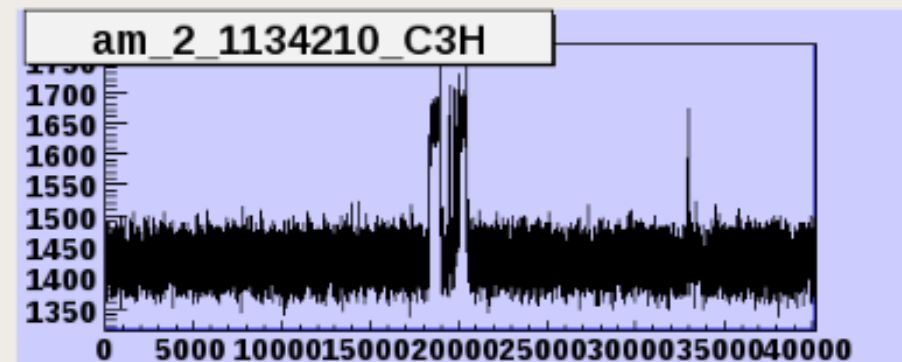
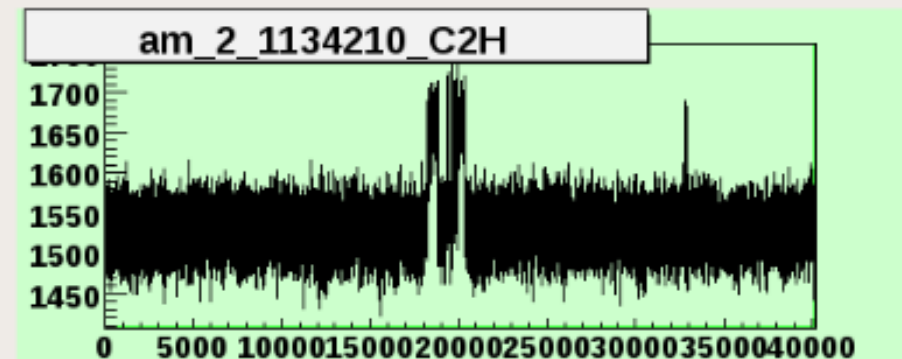
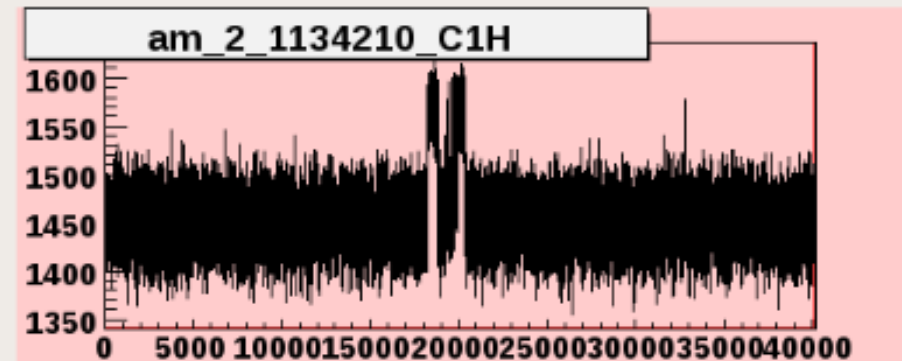
# Amber test with 4GHz source: preliminary results

Info 0: 5420 Info 1: 0

- Timing seems OK
- Multiple pulses are observed (bad debouncing).
- C3 works, now
- All other channels are OK



- The SD active tank list had to be updated to be able to see the newly installed INFILL tanks with Amber software.



# Summary

Despite a few problems, the 4GHz source test was successful

Auger-Amber timing is OK, no 180 microsec offset is observed.

Channel 3 was fixed, and active tanks list was updated

Therefore we should have seen signals from the events in Amber FoV

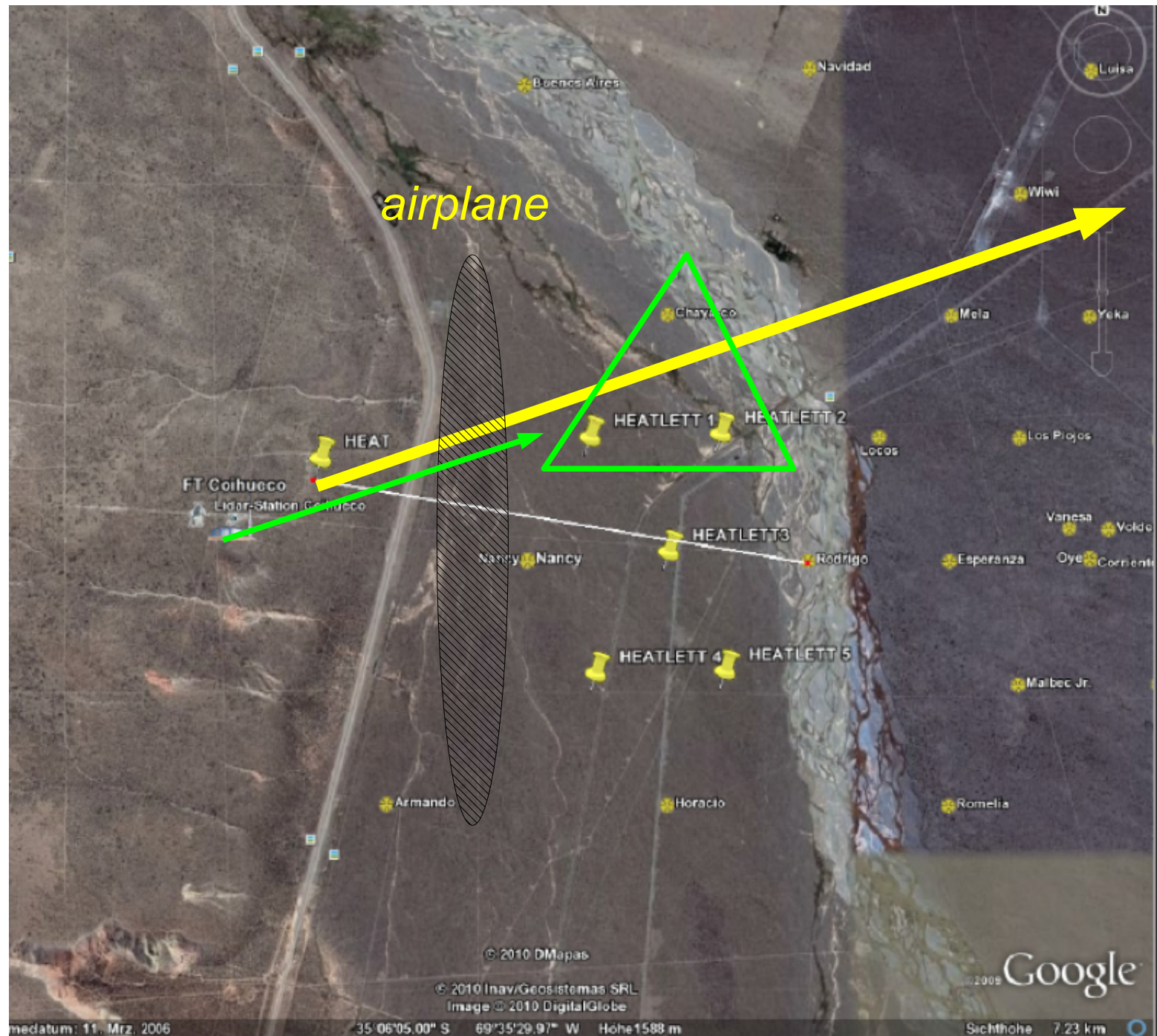
Next : work hard and set a limit ...

# Timing offset? Plan testing with a 4GHz source

Plan:  
Trigger:  
• Chaya-co  
• Heatlet-1=Tanguito Jr  
• Heatlet-2=Valentin Jr

Nov.2011:  
From Coihueco FD or  
Amber site  
*to test SD-Amber  
timings;*

Mar.2011:  
From airplane flying  
as shown  
*To calibrate response  
to fast pulses*





# 4GHz source tests @ Manoa

Signal pulse: 6  $\mu$ s, 4 GHz, 0.3V@50 $\Omega$

$\langle P \rangle = 1\text{mW}$  ;  $E(\text{pulse}) = 6\text{ nJ}$

With 100 Hz rep rate:  $\langle P \rangle = 0.6\text{ }\mu\text{W}$

Power amplifier ZHL-16W-43+  
gain : 45.1 dB @4. GHz

Cables: switch to Power Amp 1dB  
Power Amp to antenna 3 dB

Attenuators:  
VAT-6 : 6.4 dB @ 4 GHz

Two test cavities

