AMBER alignment and calibration issues

RM, Manoa Aug.29,2011

AMBER calibration goals, timelines

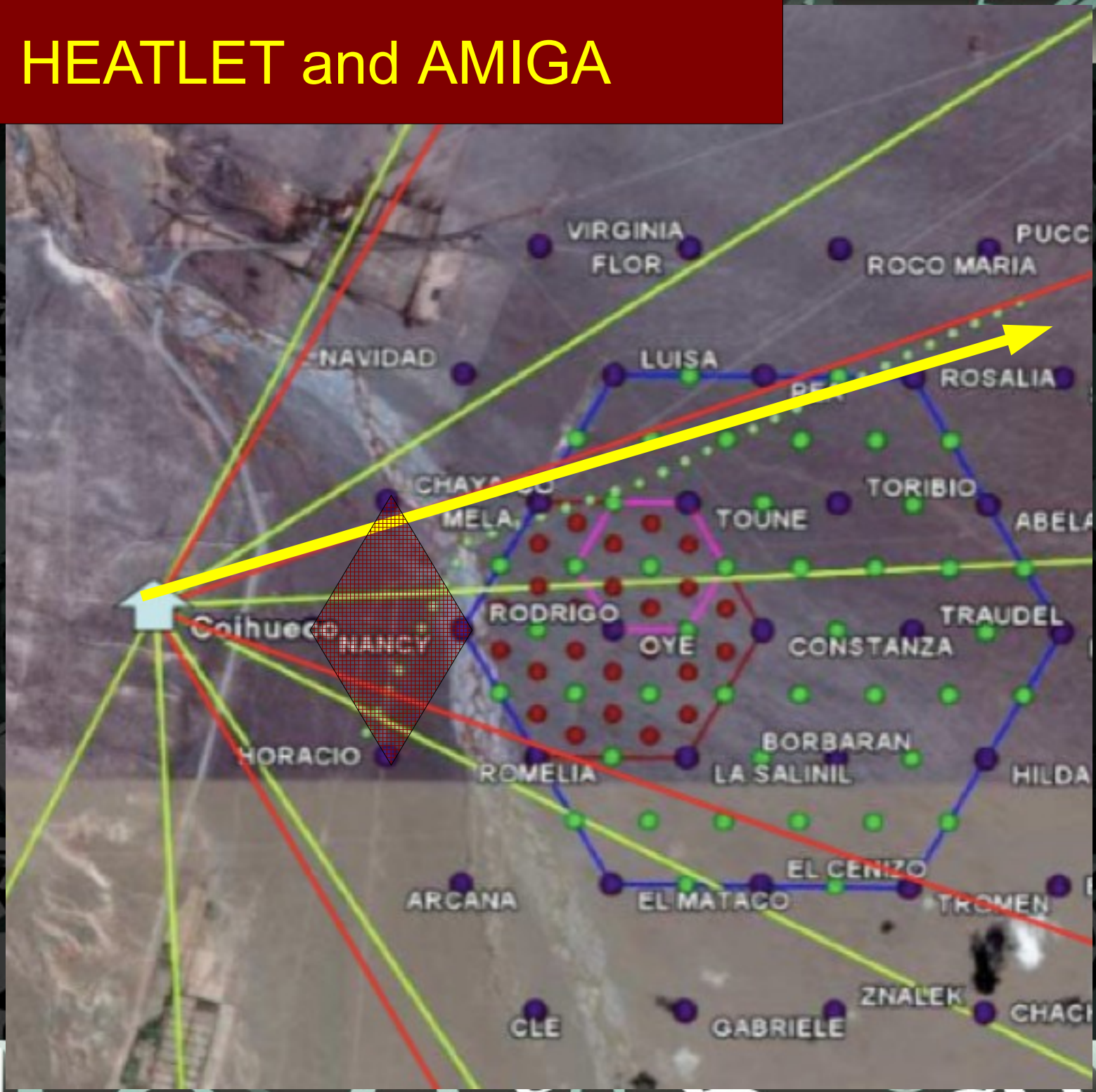
Short term (by november 15):

- AMBER-SD synchronization

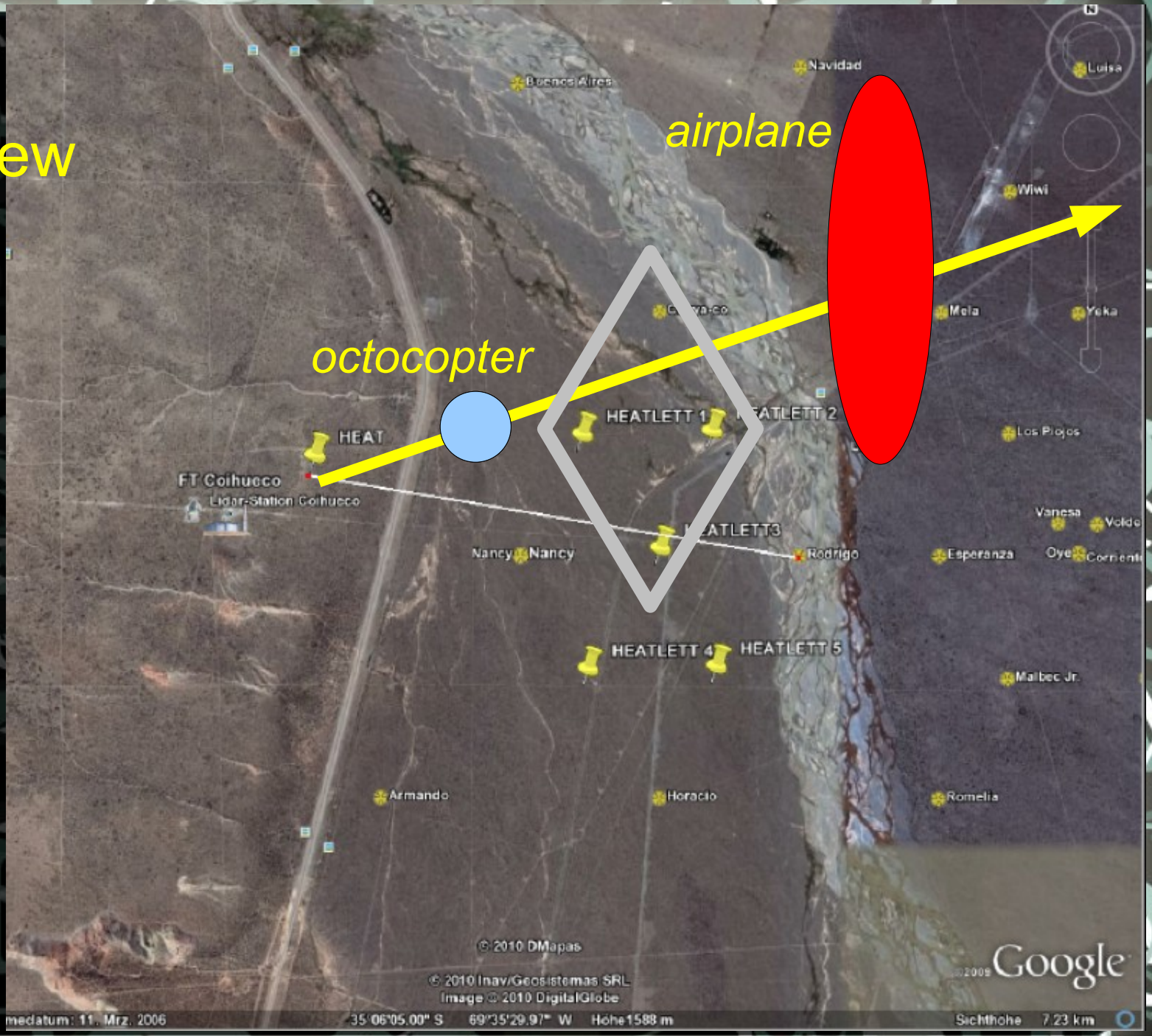
Long term (april?may?)

- AMBER calibration with shaped pulses

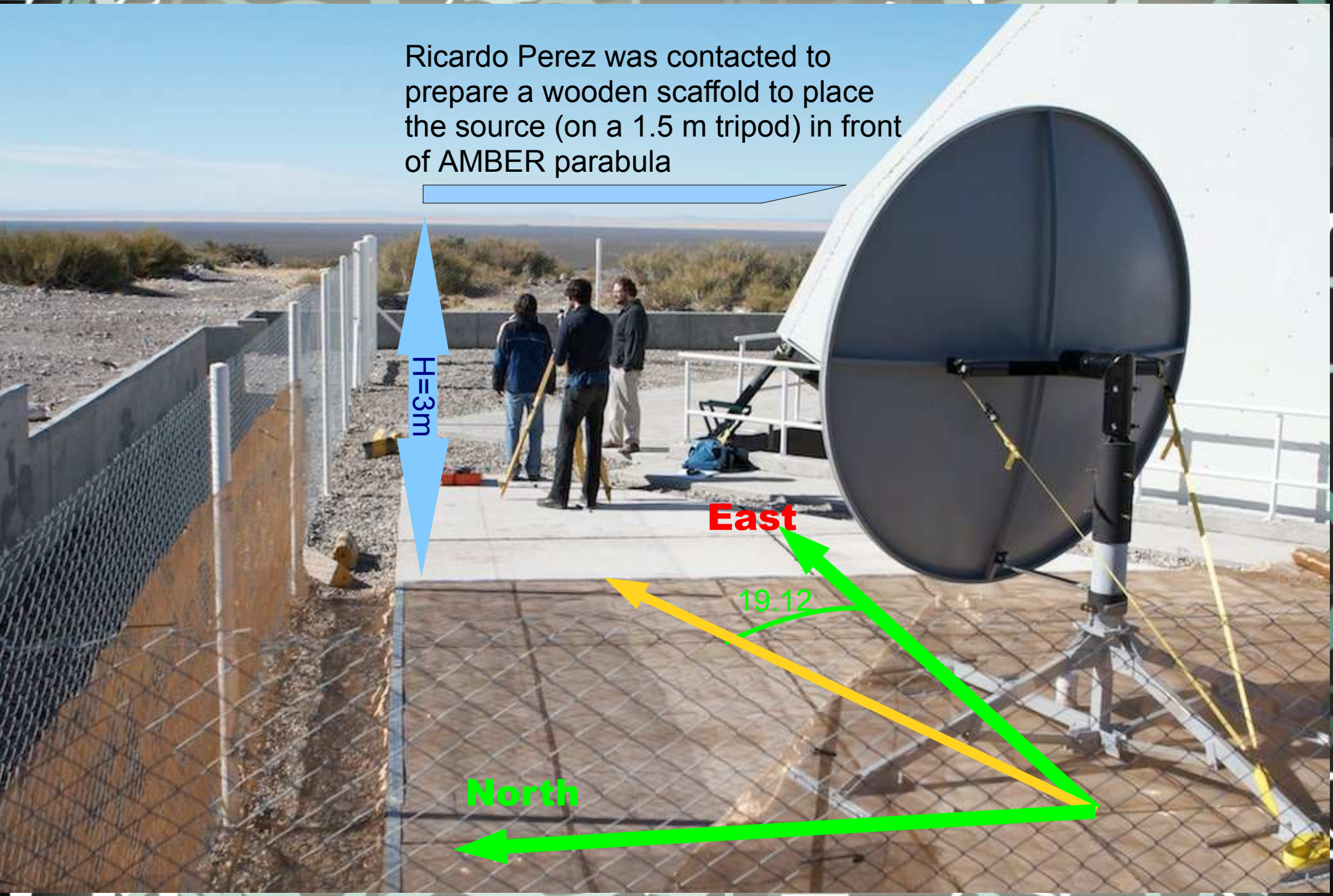
HEATLET and AMIGA



HEATLET zoomed view



AMBER near calibration stand



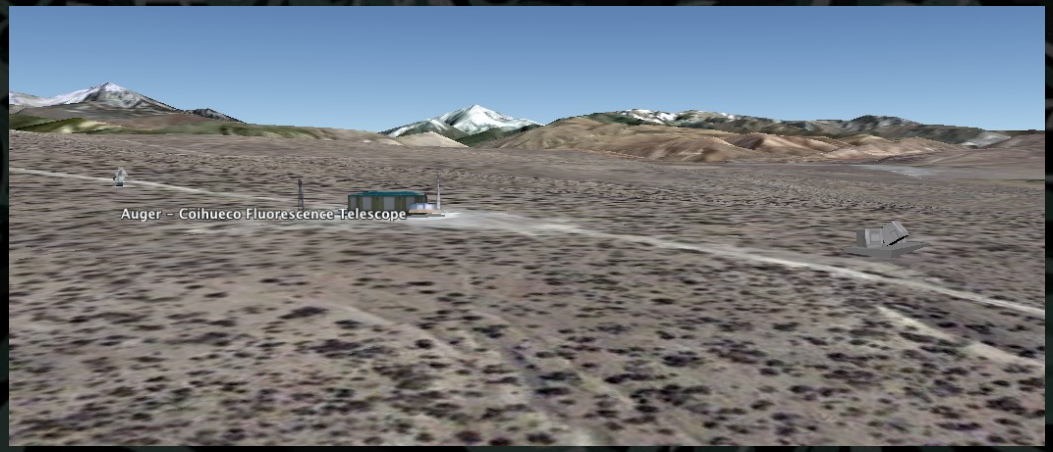
Coihueco in GoogleEarth

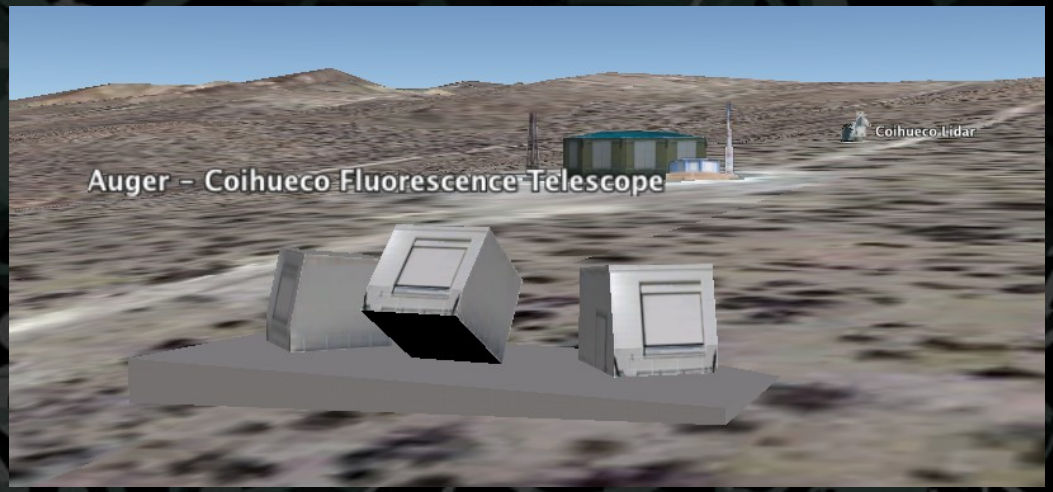
HEAT/Amber Coordinates:

- *E=445672 N=6114174 (my file?)*
- *Lat=35°06'48.85" (GE)*
- *Long=69°35 52.62" (GE)*

•FD Coordinates:

- *E=445358 N=6114135*
- *Lat=35°06'50.90"*
- *Long=69°35 58.68"*



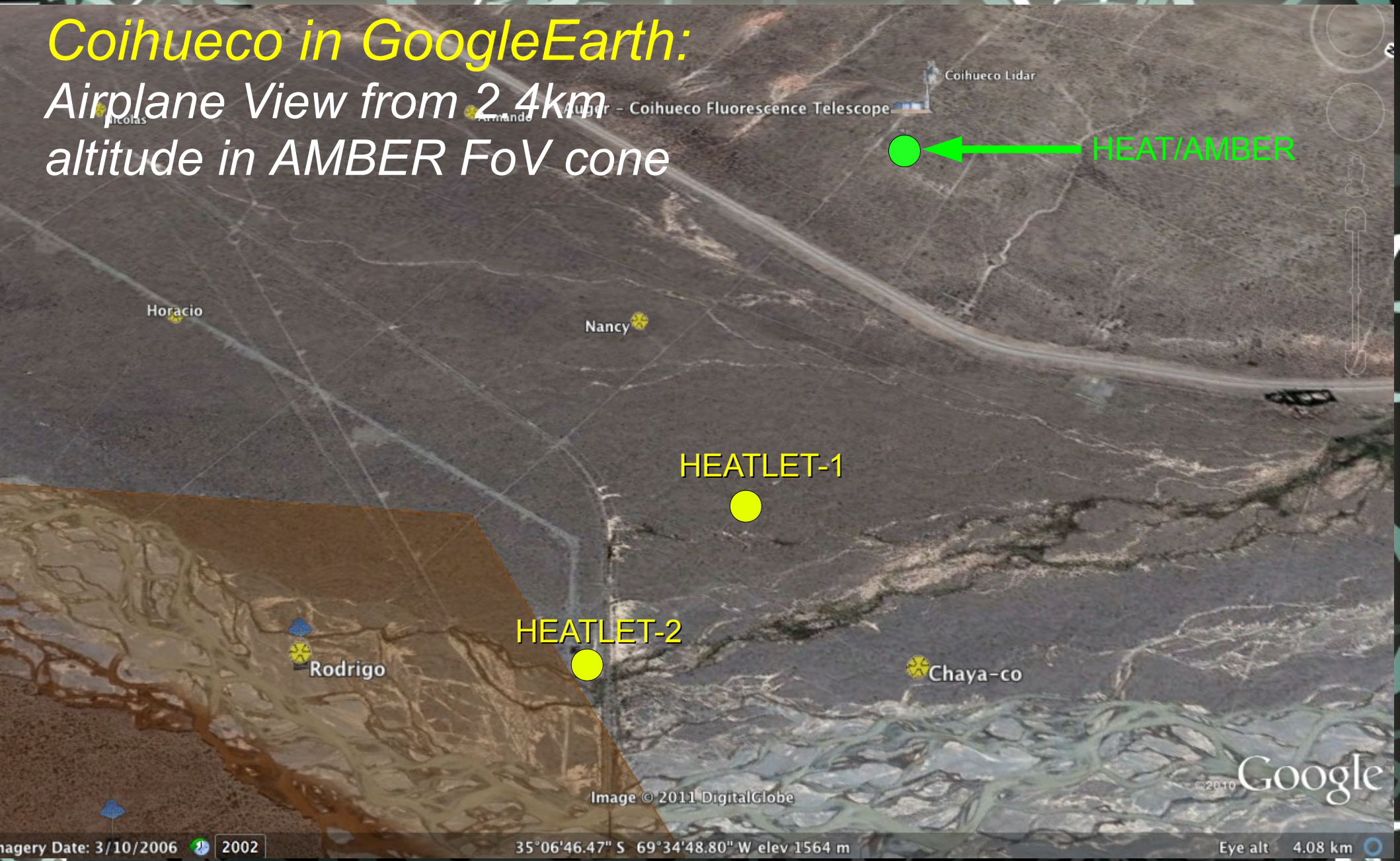


Coihueco in GoogleEarth

HEAT/AMBER should be visible from the closest tank (Nancy) but we'll send Riki to check

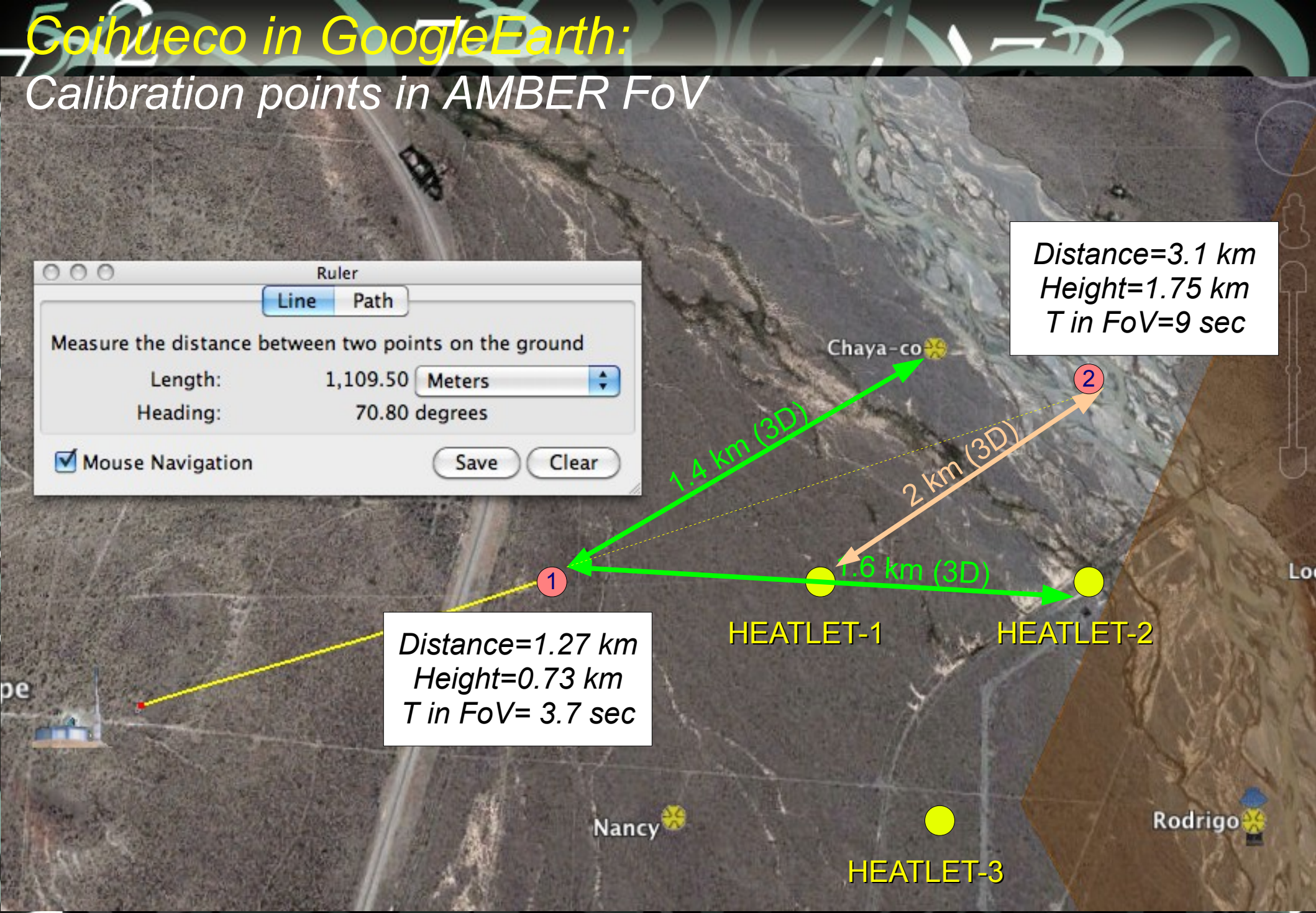
Coihueco in GoogleEarth:

Airplane View from 2.4km altitude in AMBER FoV cone



Coihueco in GoogleEarth:

Calibration points in AMBER FoV



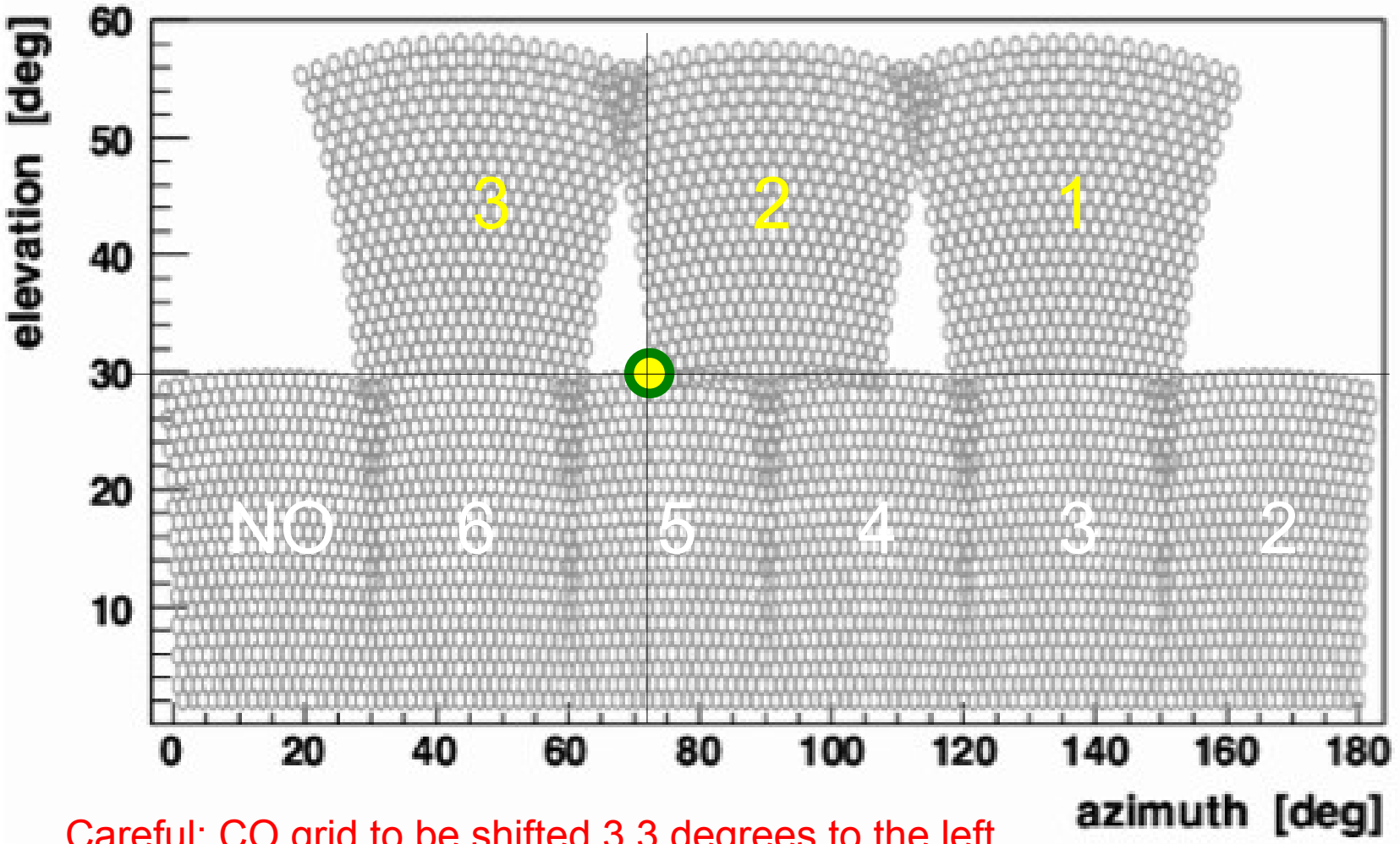
Aircraft option 1: Piper P-28 Arrow 2

Can take up to 4 people
Cost: ~900 AR$/hr=210US$/hr (fuel+pilot)
Cruising speed ~ 137 knots = 254 km/h
No problem to fly at about 200 kmh = 55m/s, or
at lower speed, flaps on.

Aircraft option 2: Cessna 182E

Can take up to 4 people
Cost: 1.3X Piper? (fuel+pilot)
Cruising speed ~ 138 knots = 256 km/h


Optical Axis
30º



Careful: CO grid to be shifted 3.3 degrees to the left

Octocopter Option:

- flying altitude range: 500-600 m (max 1000 m)

- about 20 mins autonomy (2,3 sets of batteries?)

- no way to have one ready by november : fully in the hands of Germans, who are preparing for a test around nov. meeting: GPS+GHz source+LED source (Ghz equipment tested on CROME). Test on HEAT at nightime, on AMBER at daytime?

- we need:

- Ghz receiver to trigger tanks