



AMBER alignment and calibration issues

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AMBER calibration goals, timelines

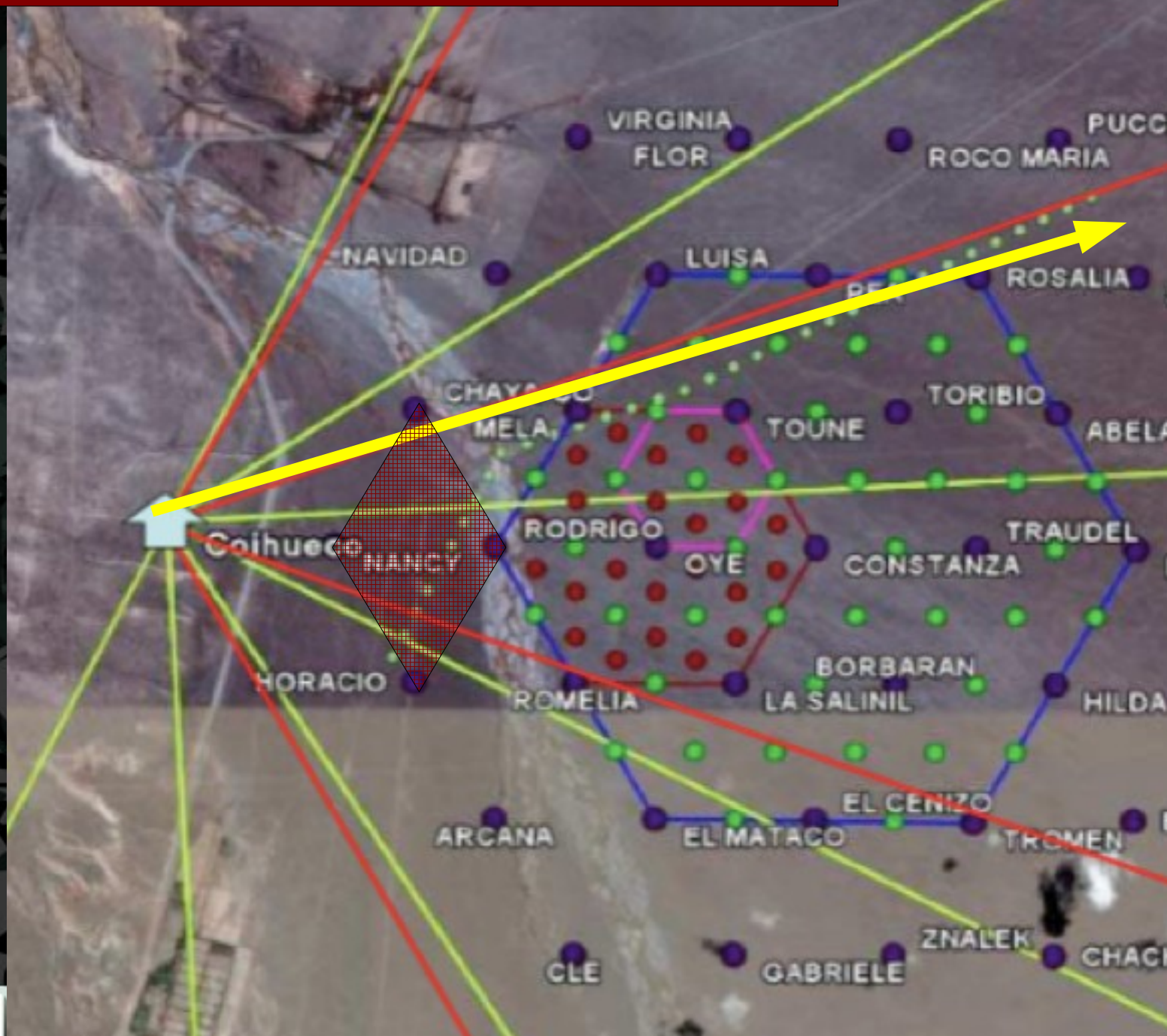
Short term (by november 15):

- AMBER-SD synchronization

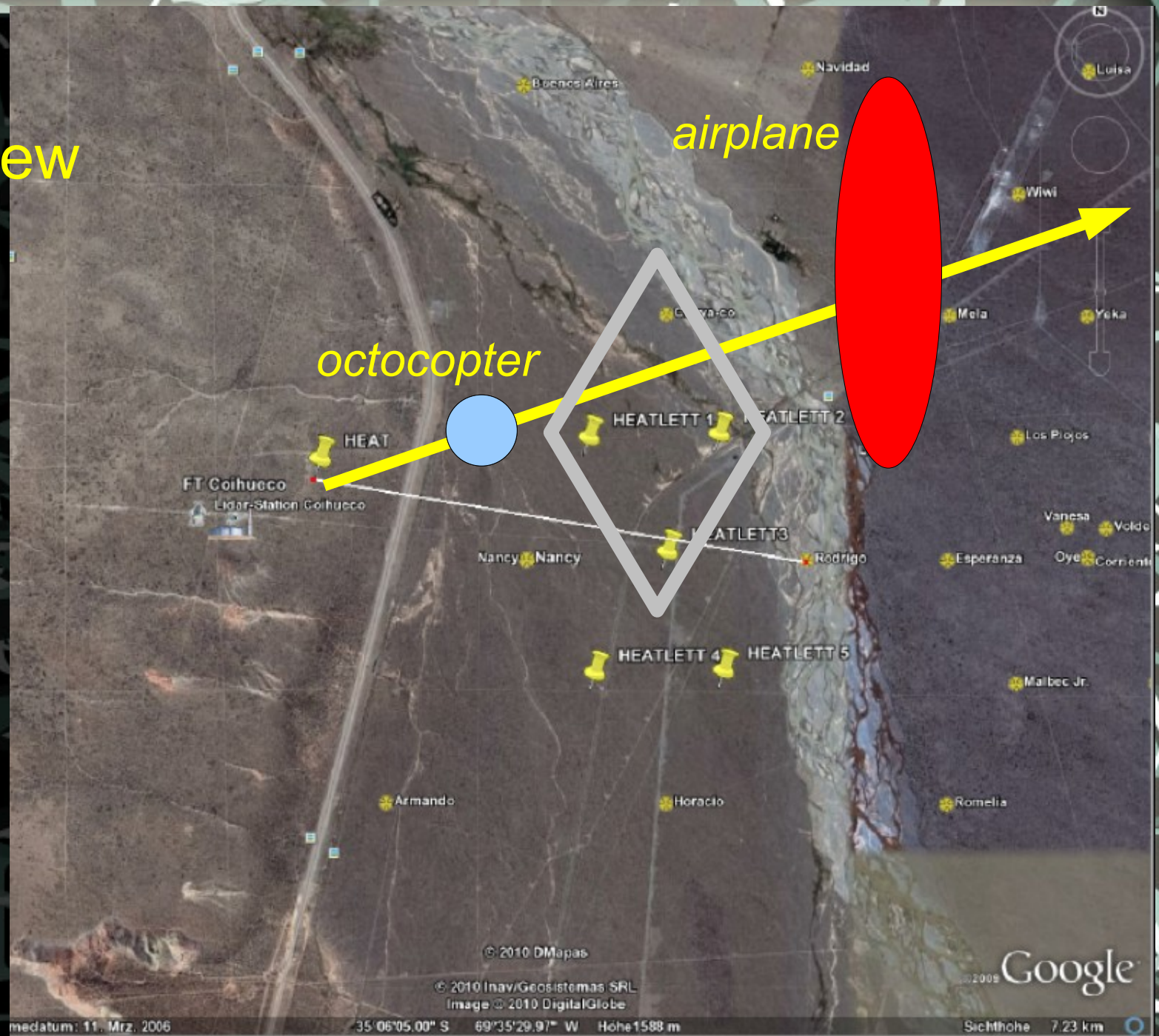
Long term (april?may?)

- AMBER calibration with shaped pulses

HEATLET and AMIGA

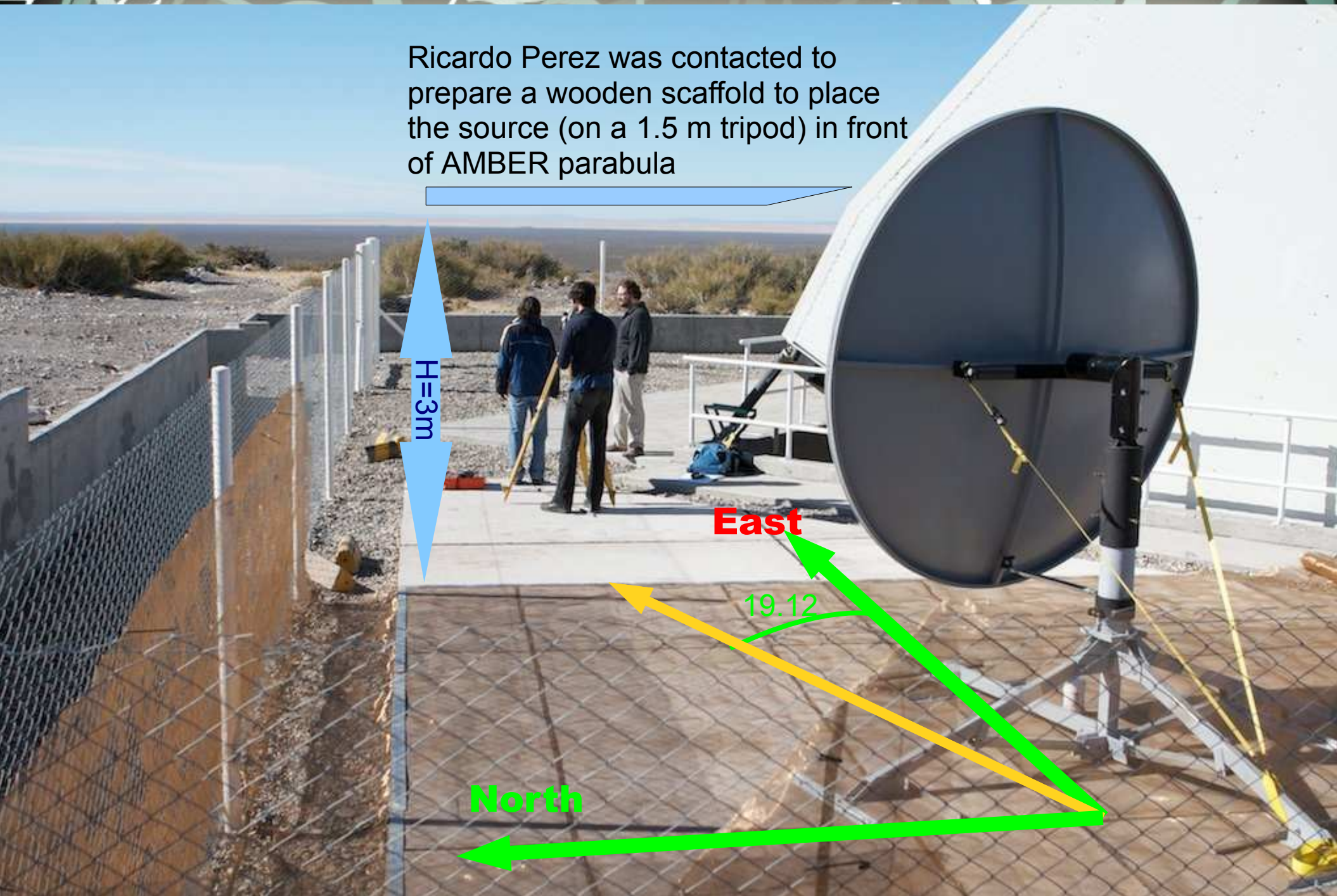


HEATLET zoomed view



AMBER near calibration stand

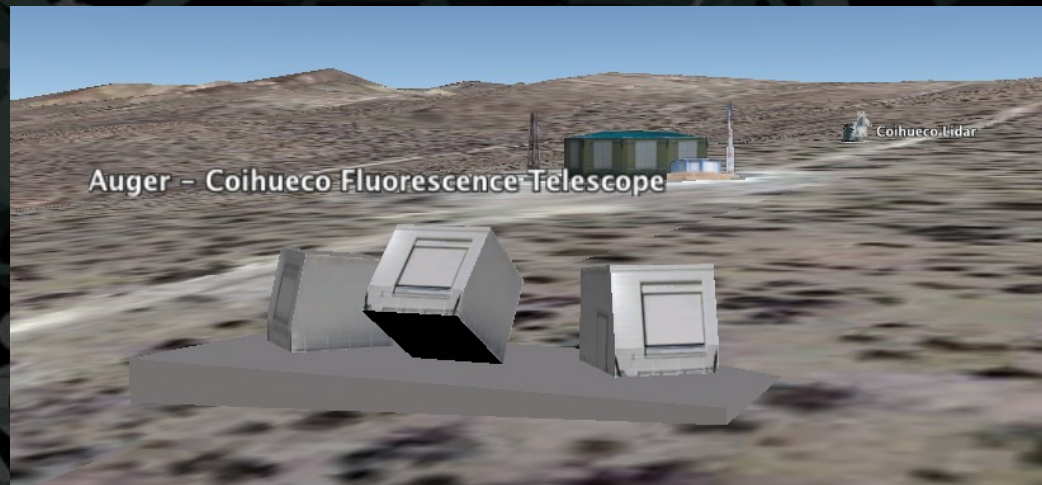
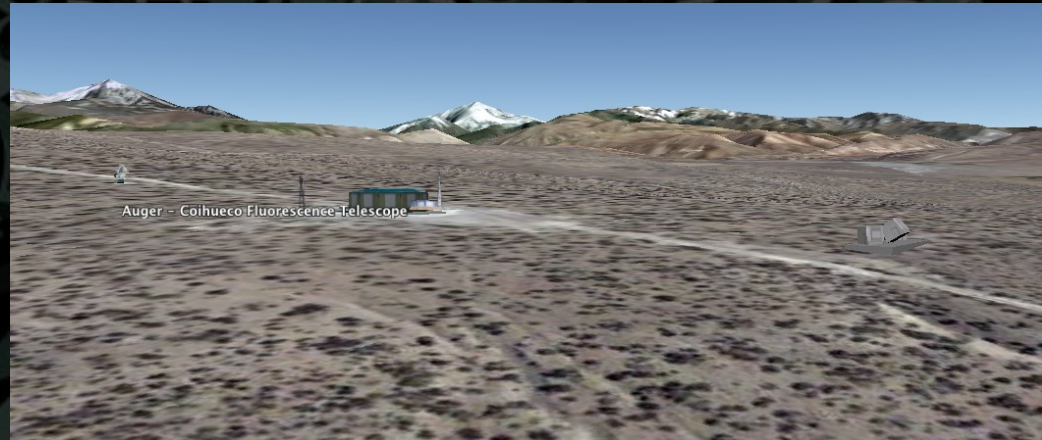
Ricardo Perez was contacted to prepare a wooden scaffold to place the source (on a 1.5 m tripod) in front of AMBER parabola



Coihueco in GoogleEarth

HEAT/Amber Coordinates:

- $E=445672$ $N=6114174$
(my file?)
- $Lat=35^{\circ}06'48.85''$ (GE)
- $Long=69^{\circ}35'52.62''$ (GE)
- FD Coordinates:
- $E=445358$ $N=6114135$
- $Lat=35^{\circ}06'50.90''$
- $Long=69^{\circ}35'58.68''$



Coihueco in GoogleEarth

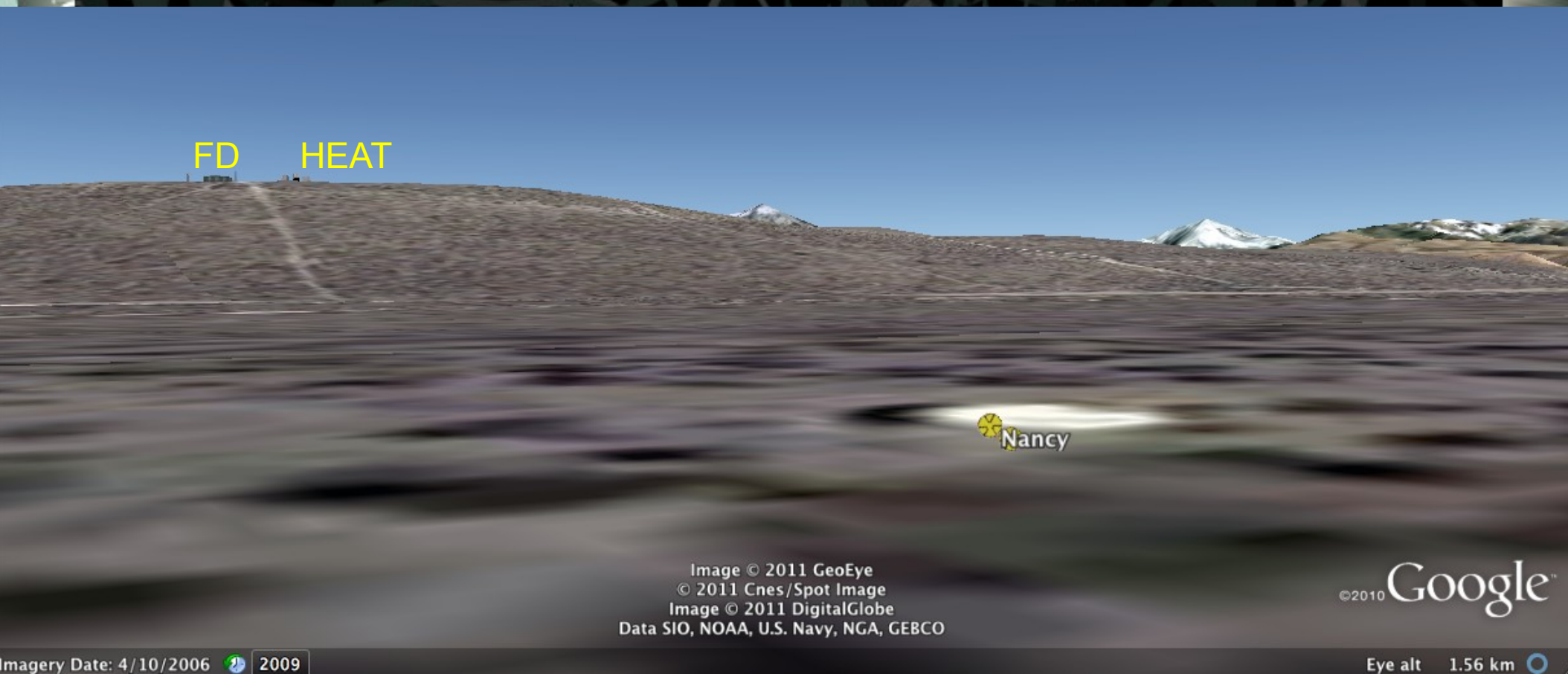


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Data SIO, NOAA, U.S. Navy, NGA, GEBCO

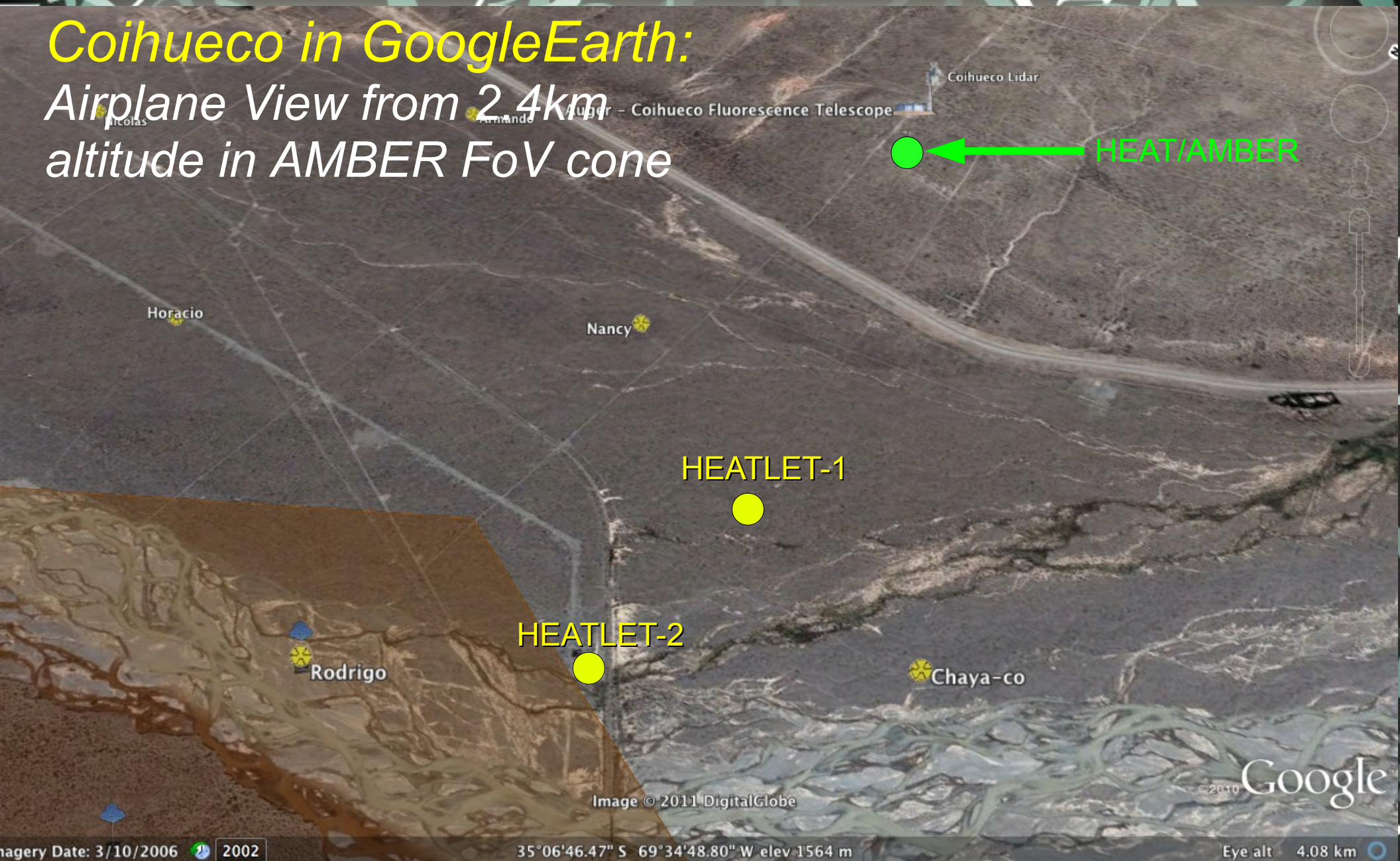
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Imagery Date: 4/10/2006 2009

Eye alt 1.56 km

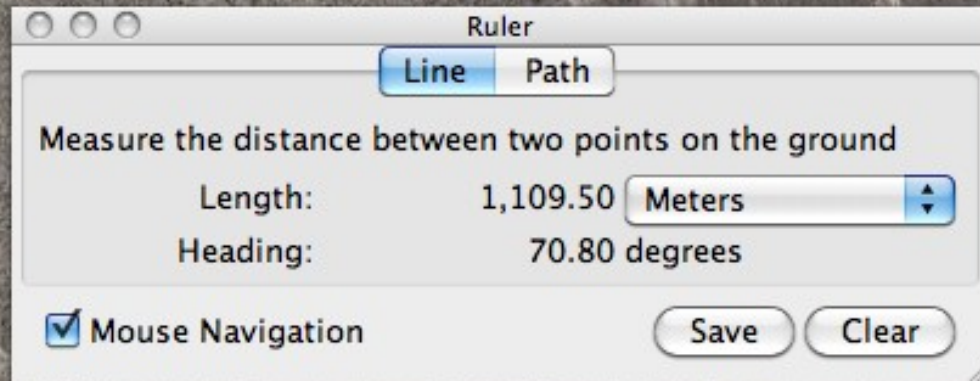
HEAT/AMBER should be visible from the closest tank (Nancy) but we'll send Riki to check

*Coihueco in GoogleEarth:
Airplane View from 2.4km
altitude in AMBER FoV cone*



Coihueco in GoogleEarth:

Calibration points in AMBER FoV



Distance=1.27 km
Height=0.73 km
T in FoV= 3.7 sec

HEATLET-1

HEATLET-2

HEATLET-3

Distance=3.1 km
Height=1.75 km
T in FoV=9 sec

Chaya-co

Nancy

Rodrigo

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

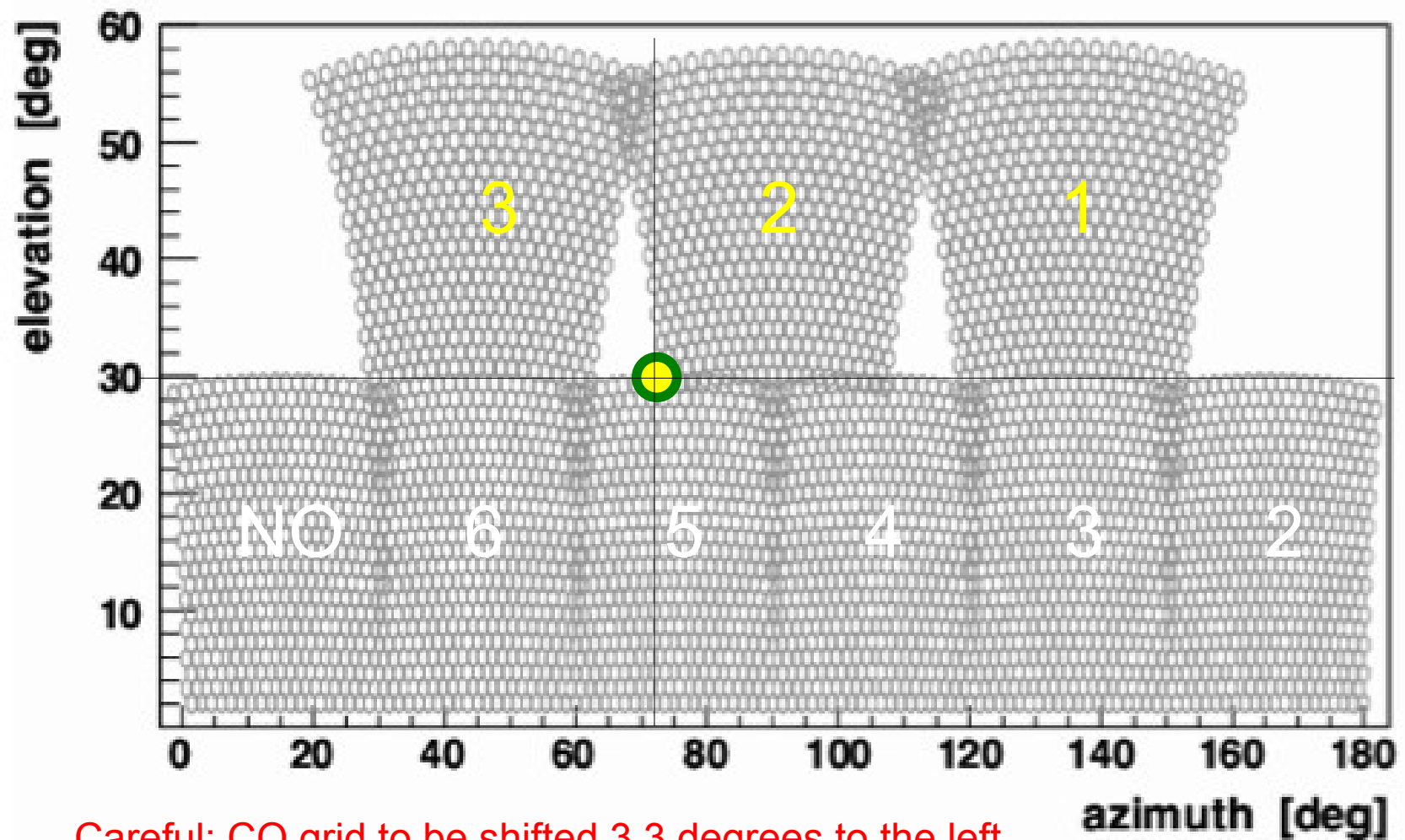
No problem to fly at about 200 kmh = 55m/s, or
at lower speed, flaps on.

Aircraft option 2: Cessna 182E



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





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 nighttime, on AMBER at daytime?*
- *we need:*
 - *Ghz receiver to trigger tanks*