

# R9 Update

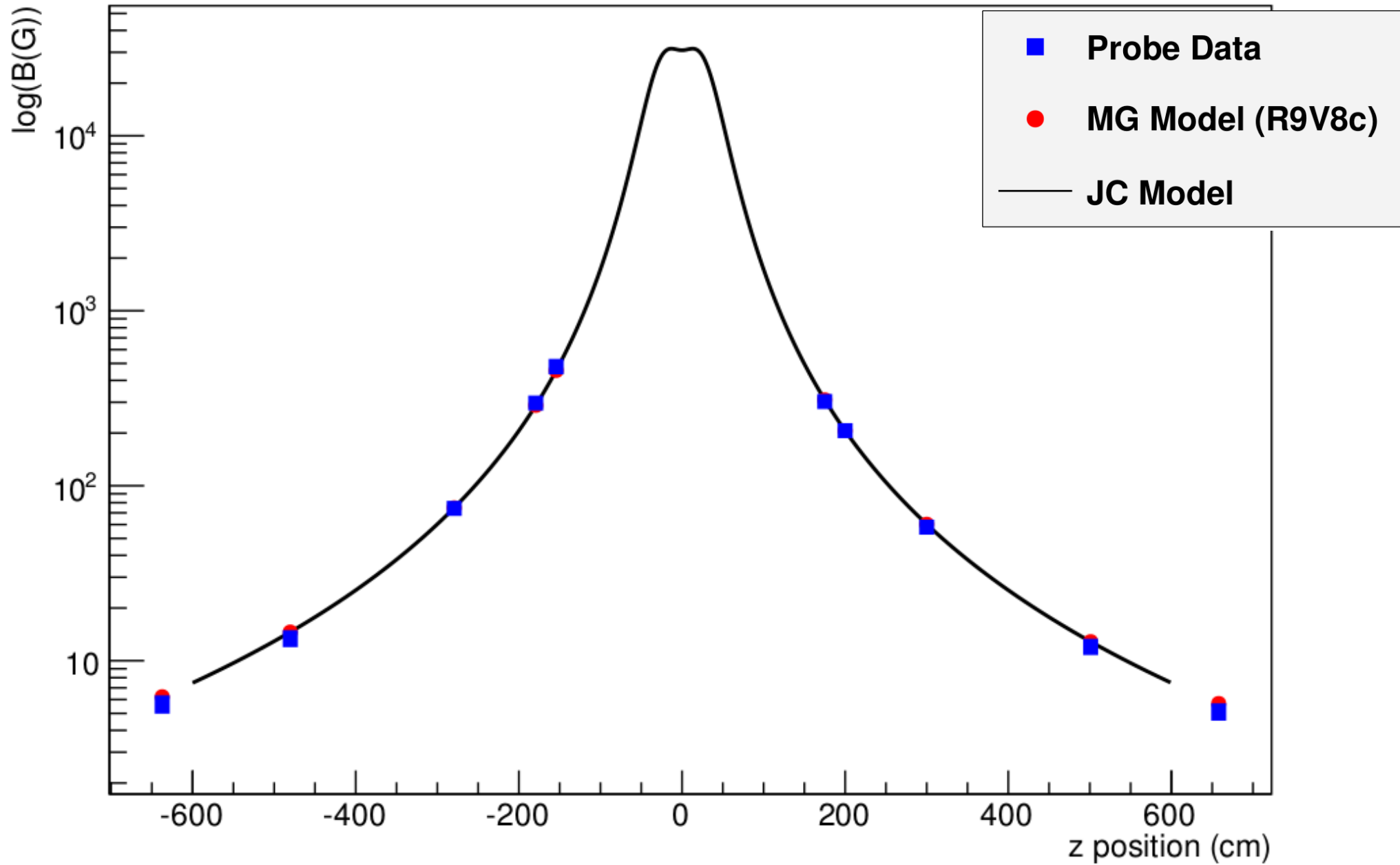
Melissa George

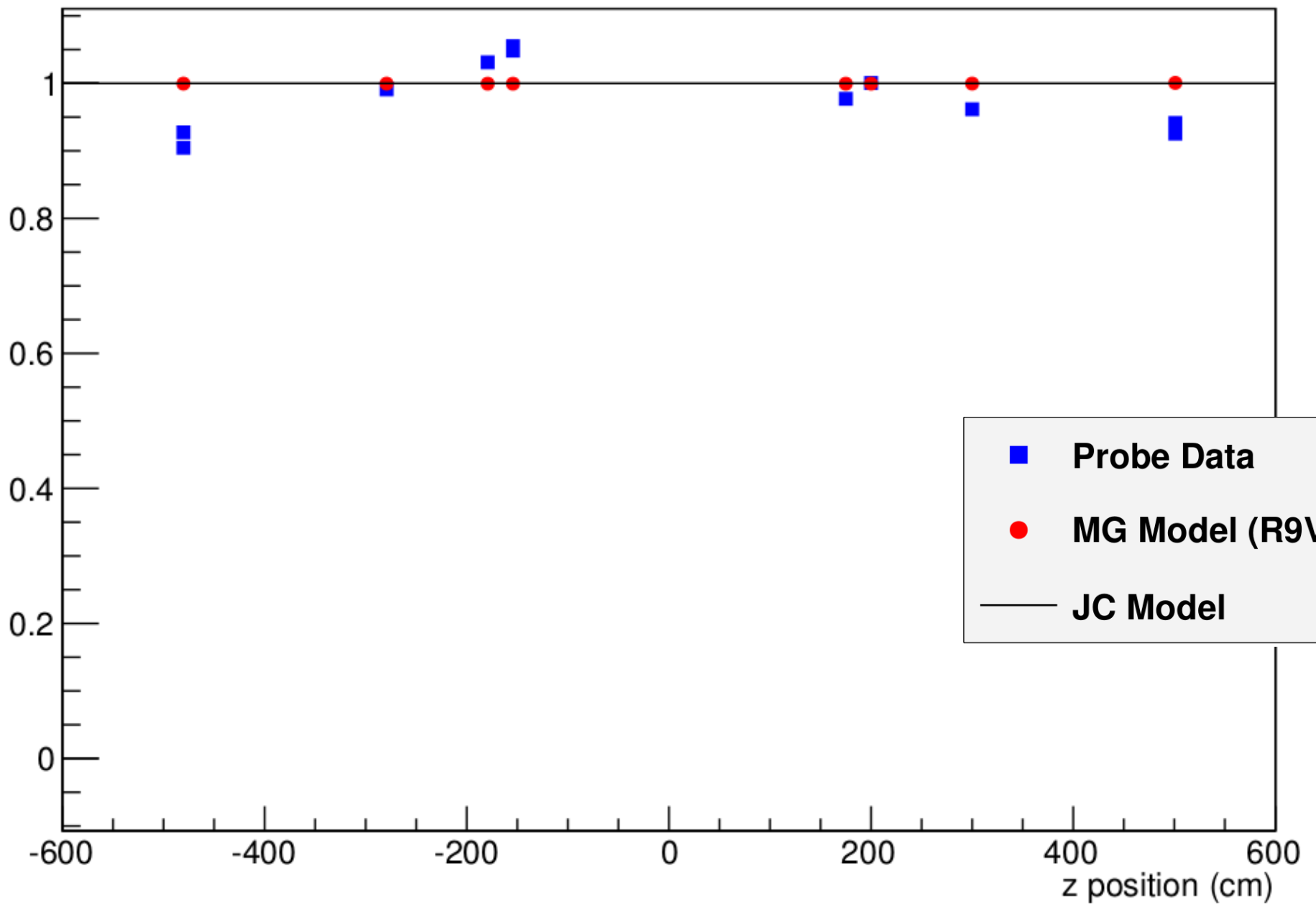
2/7/13

# R9 Model Improvements

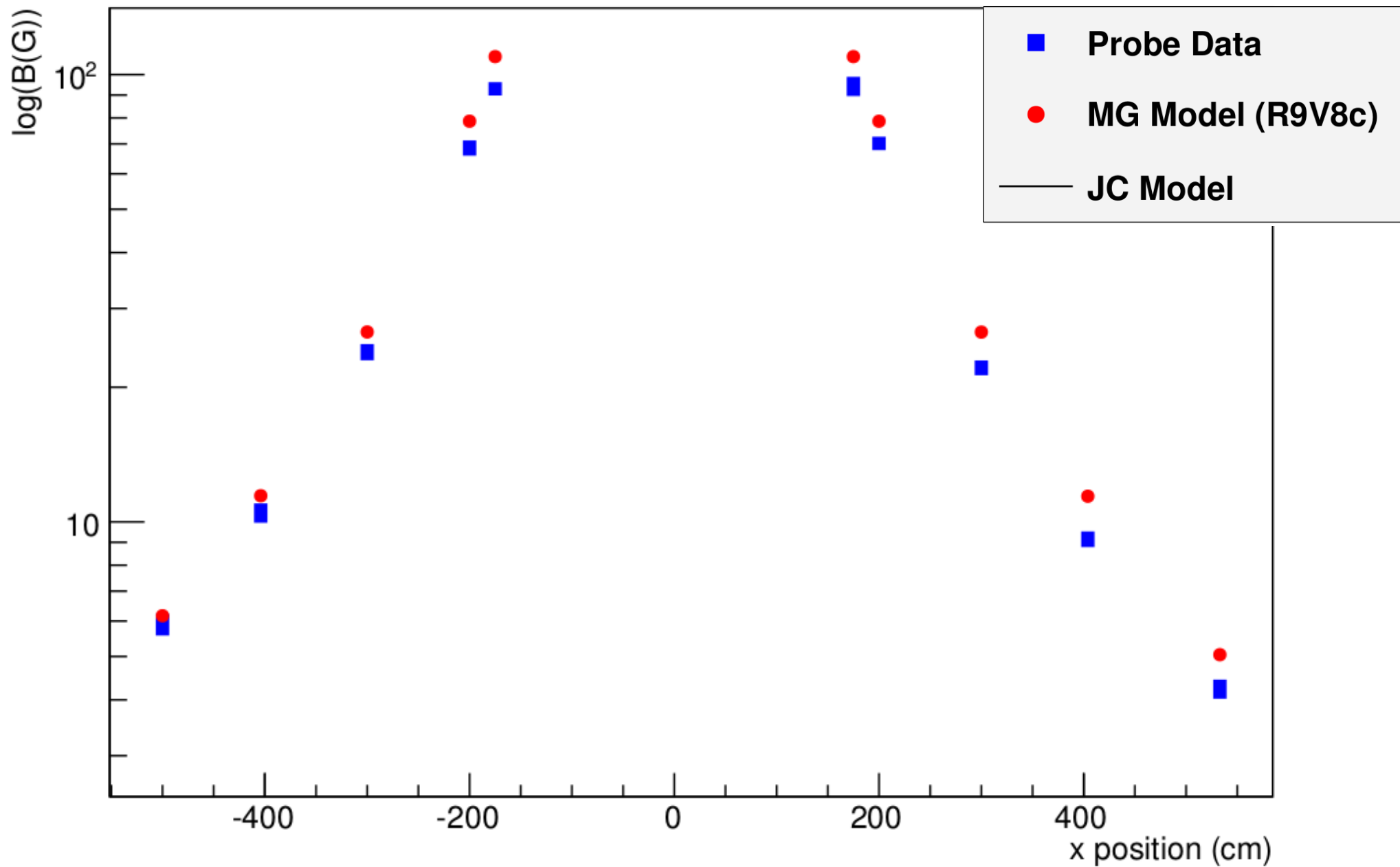
- AFC files have been corrected as TRD and "as-built" current density values were used instead of R9.
- Boundary definition/conditions, improved and validated.
- Meshing has been further improved but there is still more to do.
- Numerous coding/syntax changes.
- Preparations being made to upgrade to v16 of OPERA, should improve meshing and speed.

Comparing model data to probe data at bore height (x=0, y=0)





# Comparing model data to probe data at $y=-80\text{cm}$ , $z=0$

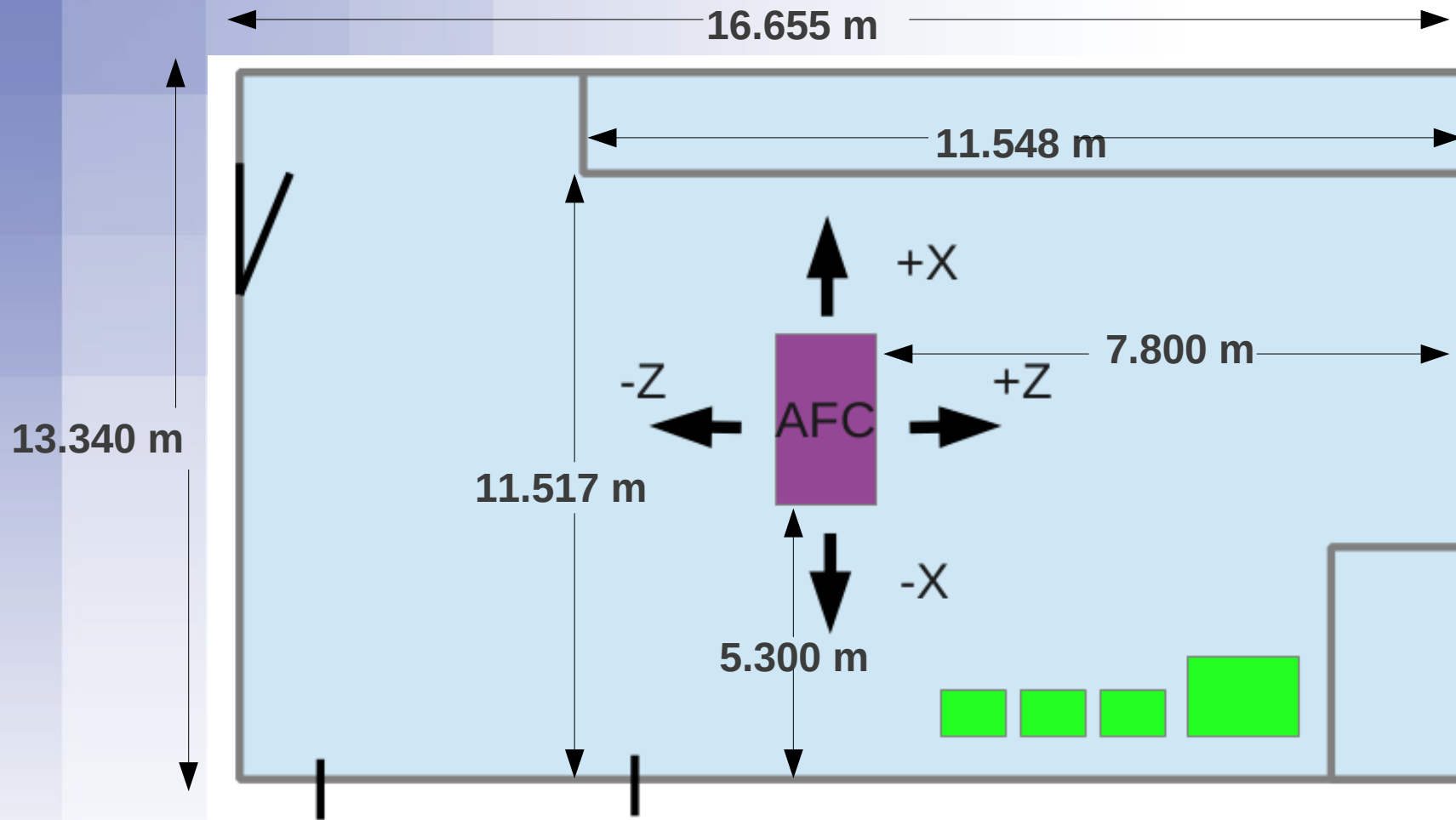


# Outcome of Improvements and Next Steps

- Model now agrees well with Biot-Savart and largely with on-axis data.
- However, there is still some discrepancy with data. Various things to do:
  - Meshing in very thin walls compared to model size?
  - 'Breaking up' of room to mesh can be further improved.
  - Lack of metal in electronics and floor?

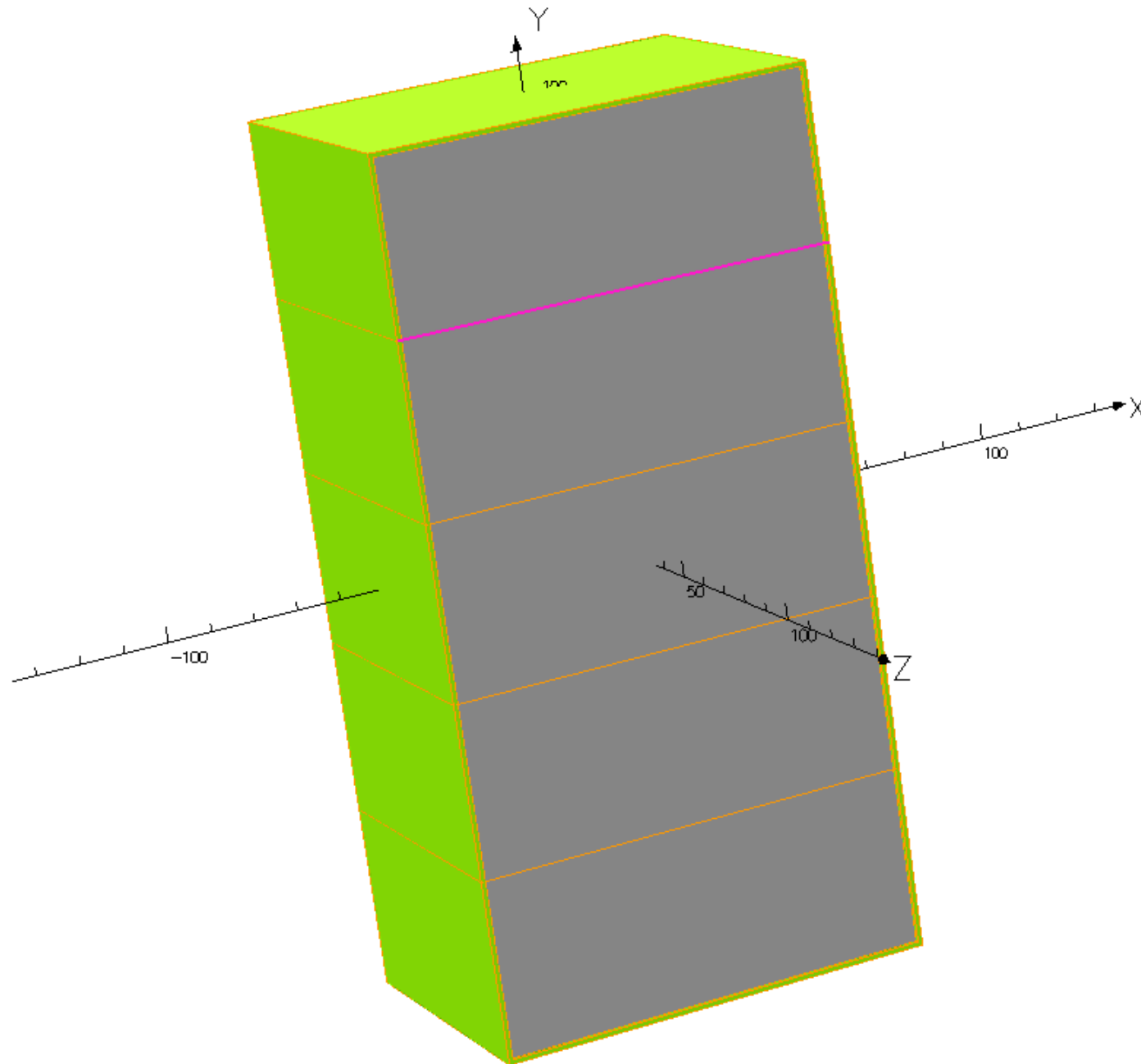
# R9 Dimensions

~ +/- 5cm error



R9 Height = 9.000 m

# Rack Model – As Before





# Compressor Model As Before

30/Apr/2013 11:44:14

