

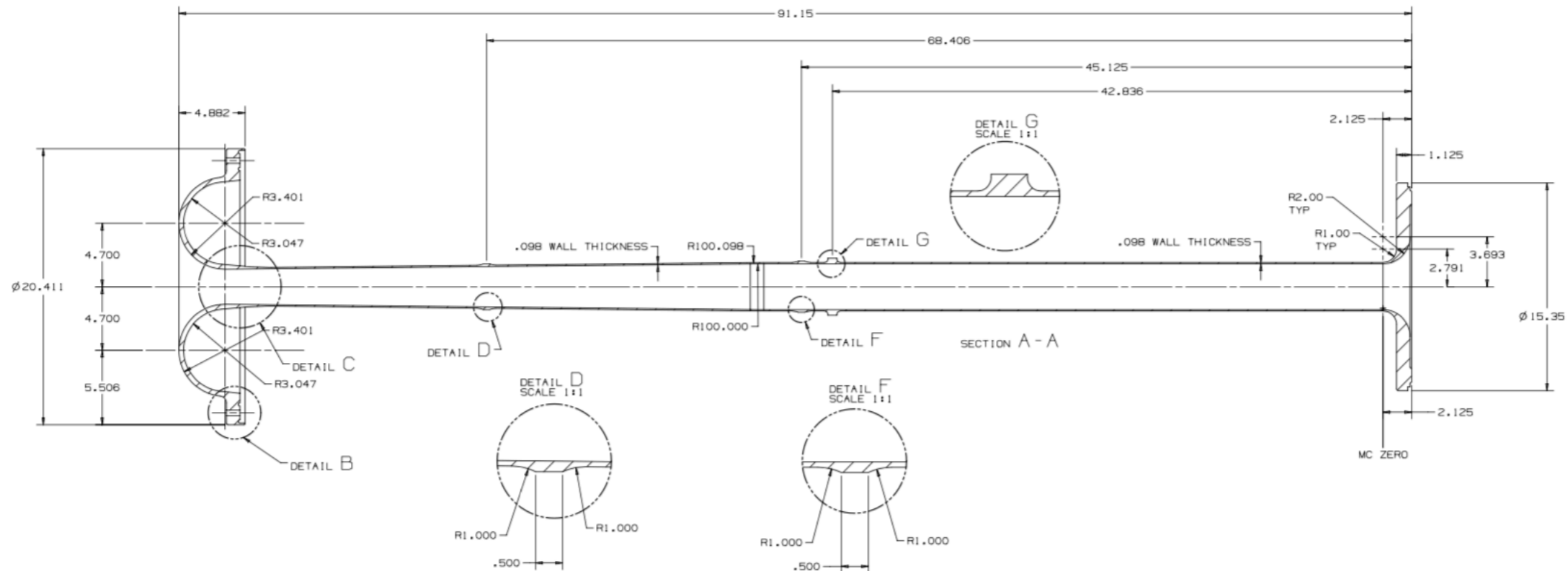
# Horn A geometry

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02/21/2018

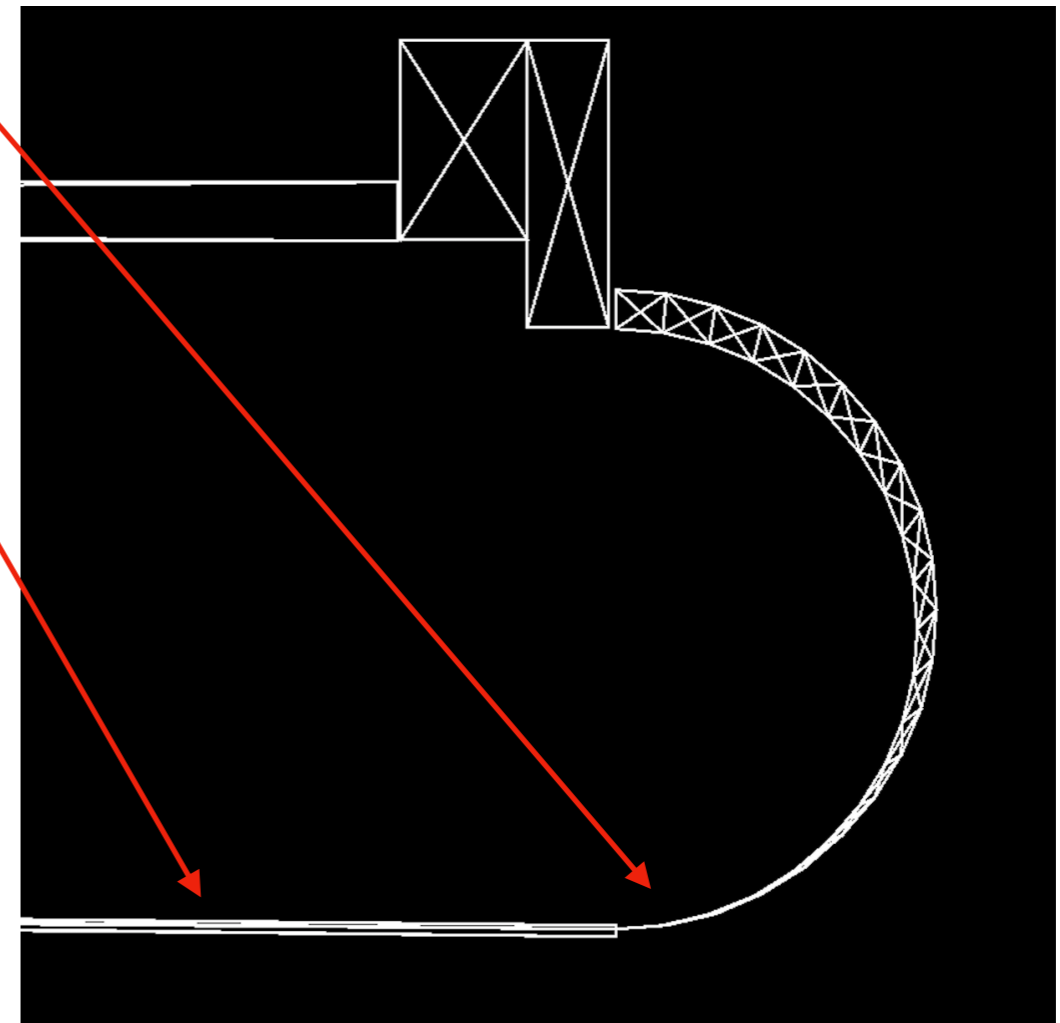
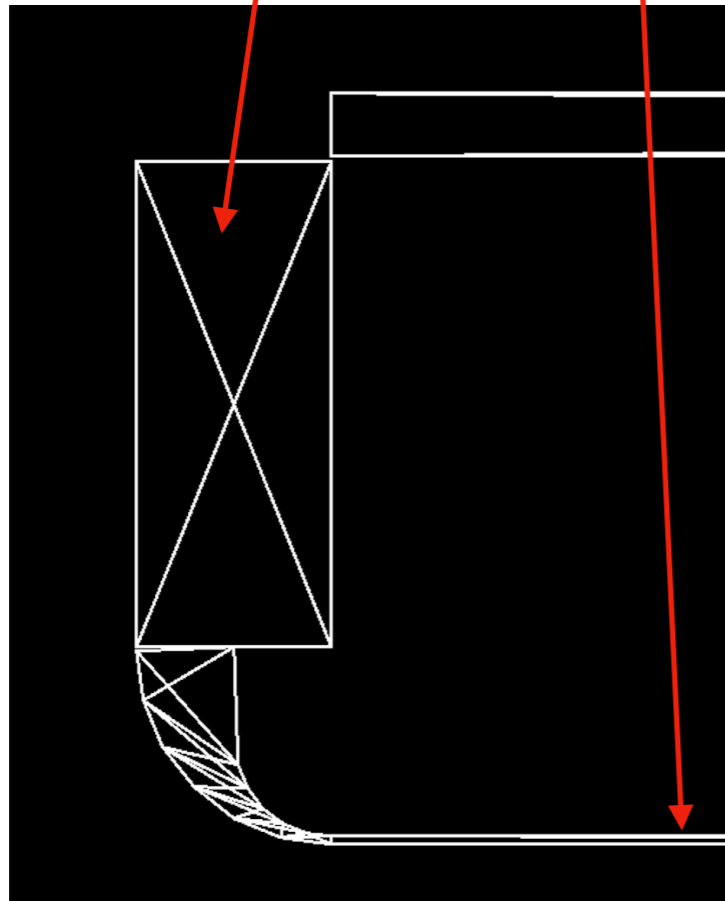
# Geometry update

- Cory sent updated horn A drawings
- Downstream end transition from inner to outer made thicker

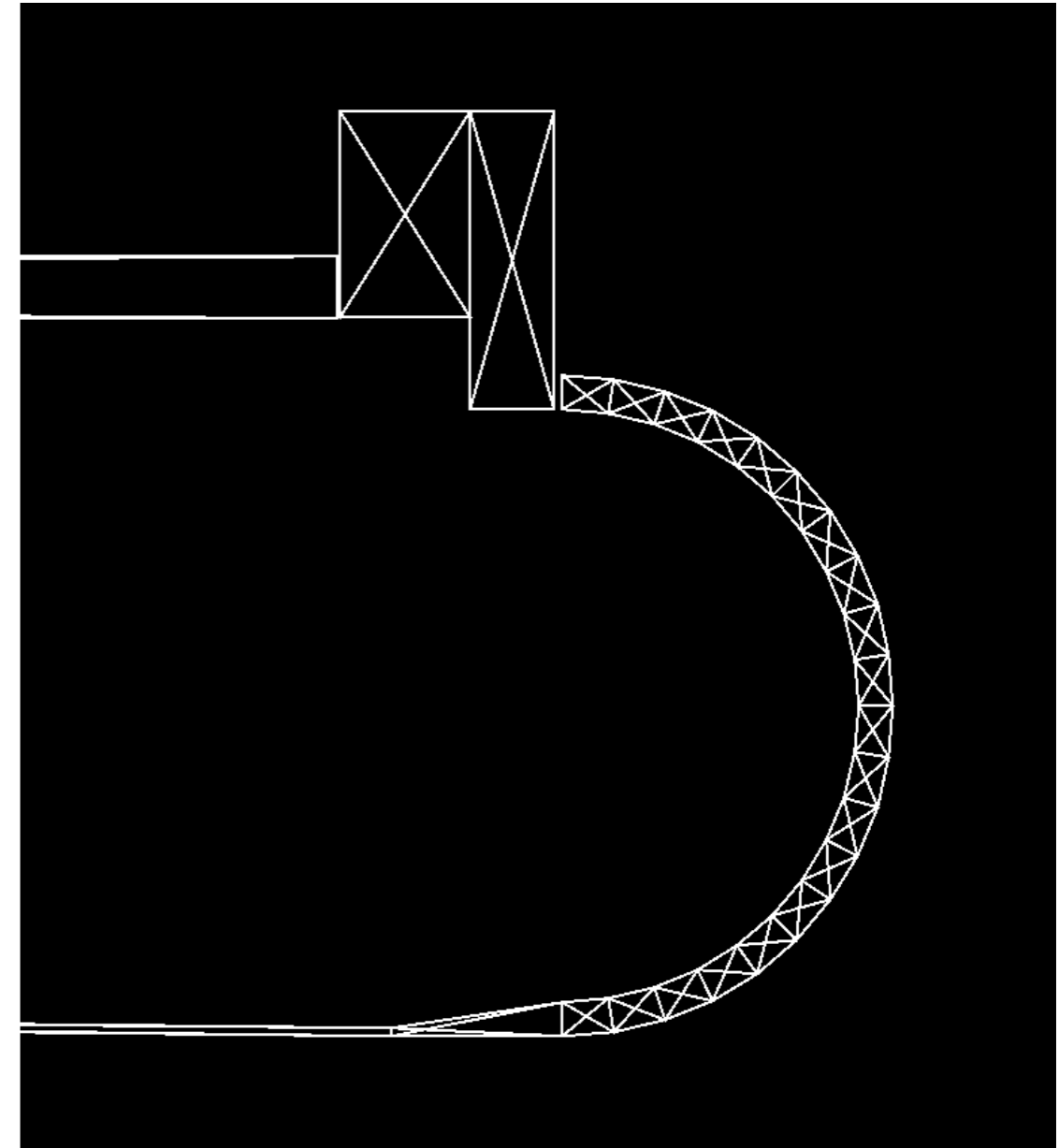
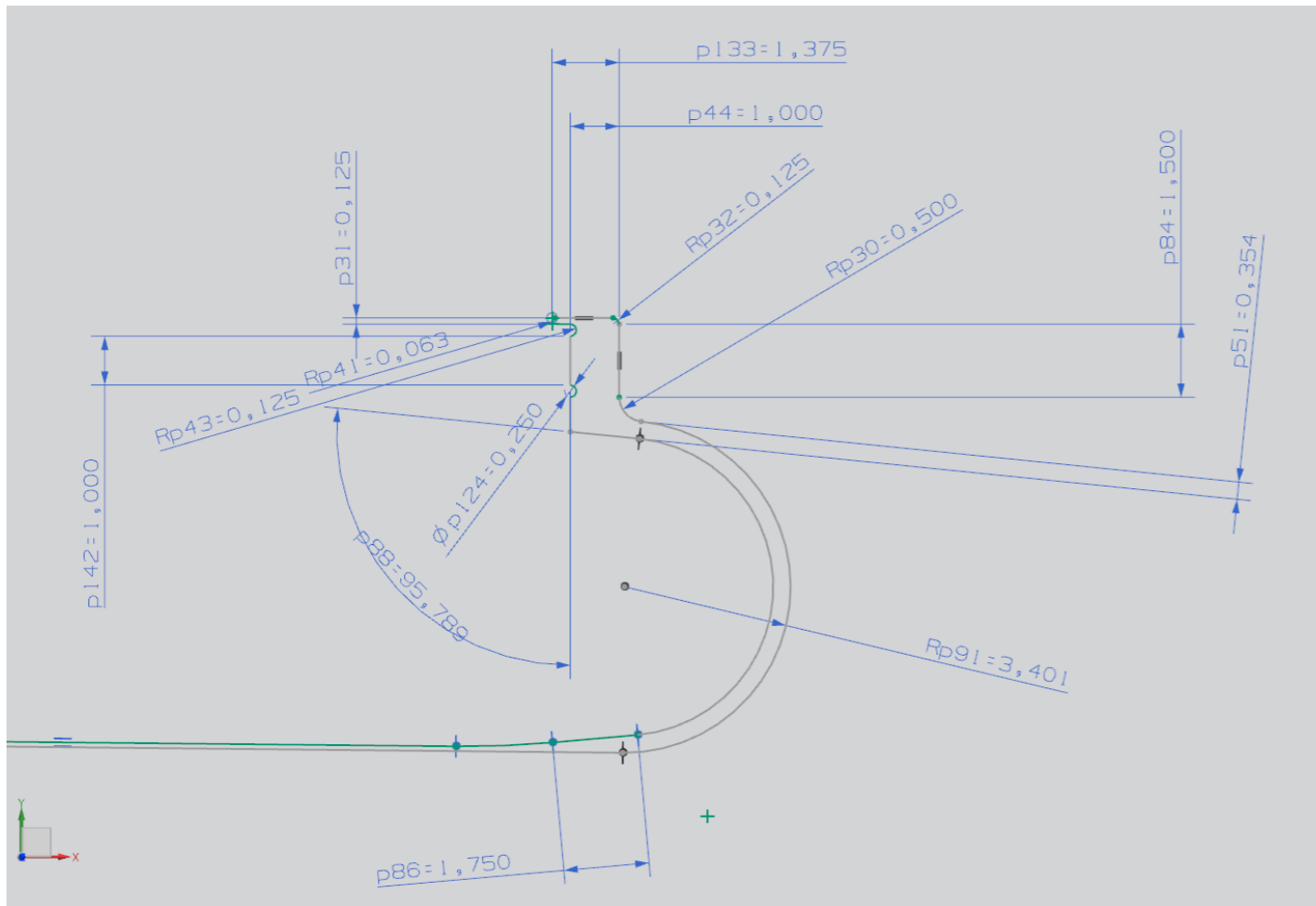


# Current geometry

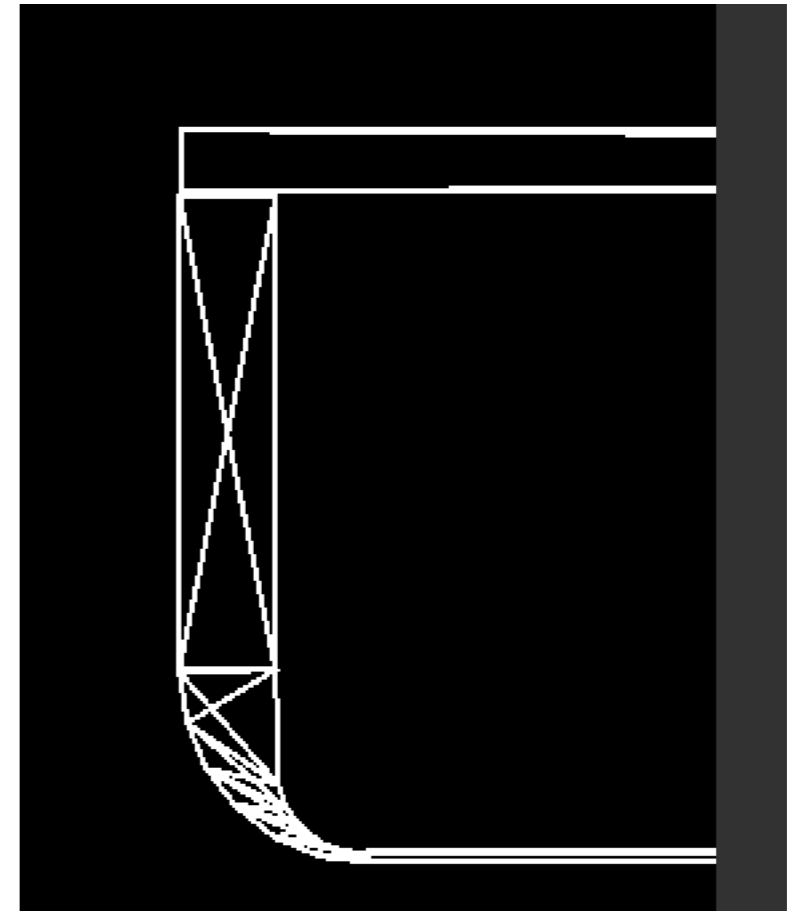
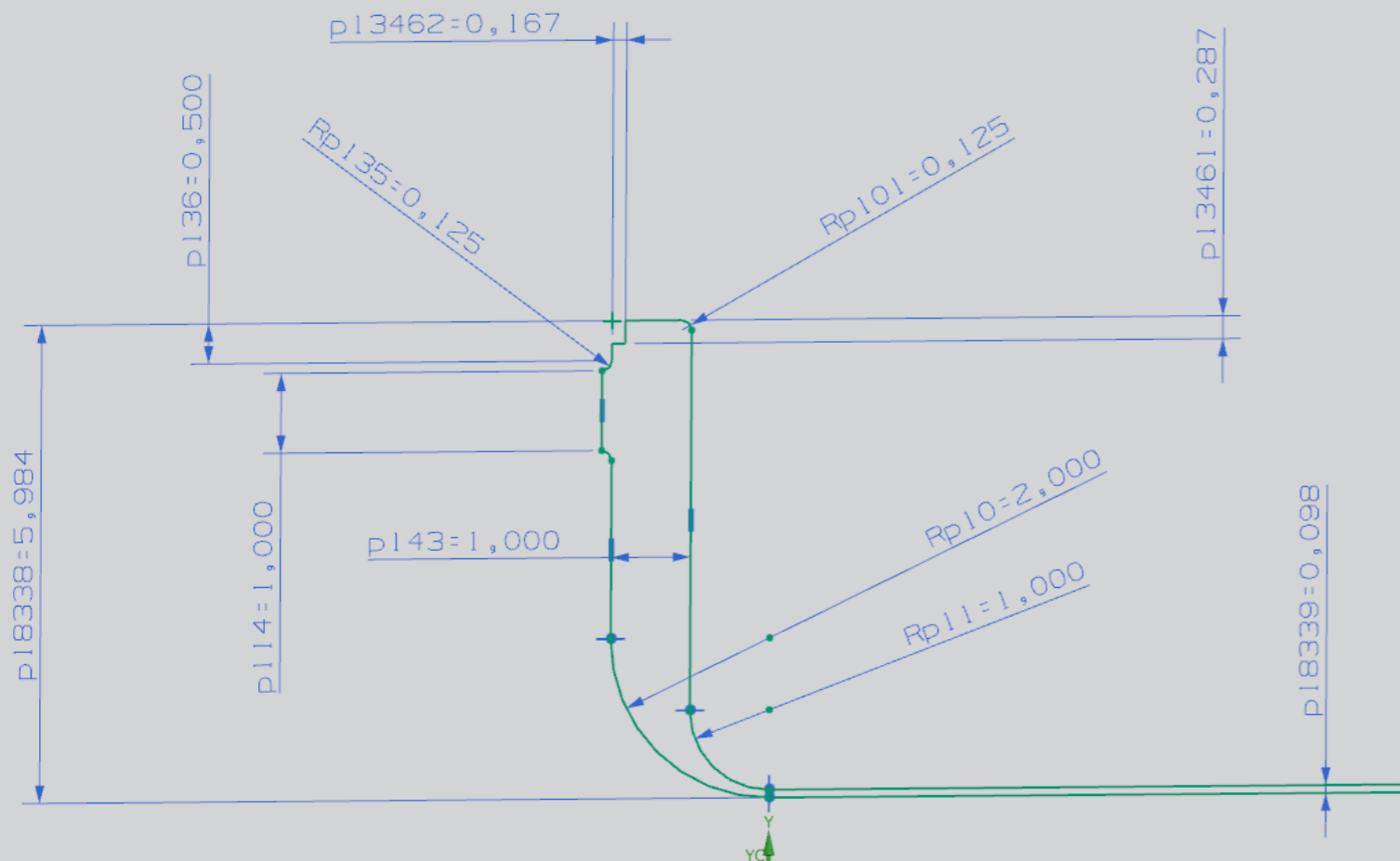
- Downstream end too thin
- Inner conductor 2mm thick
- Upstream end needed update



# Downstream

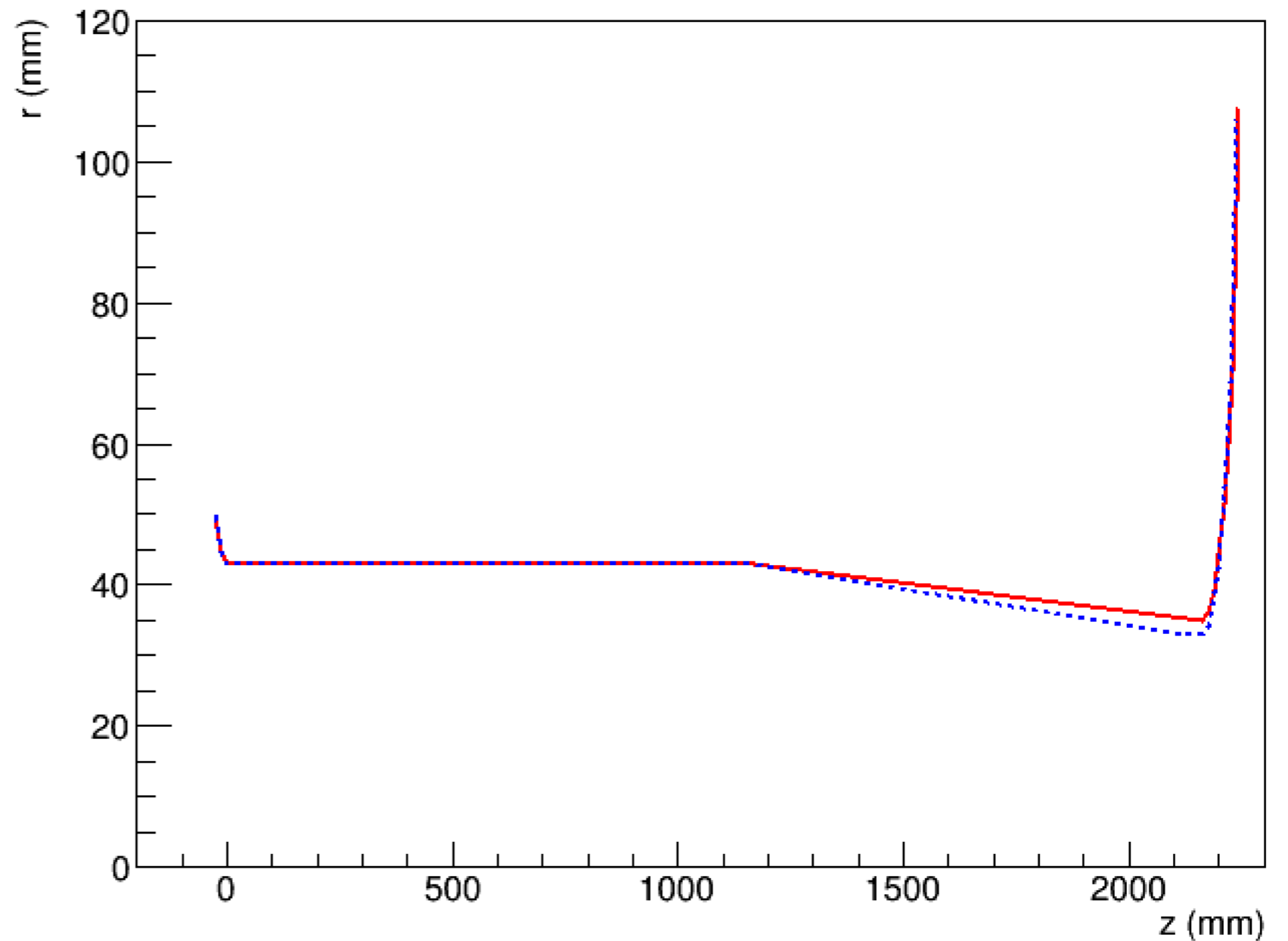


# Upstream



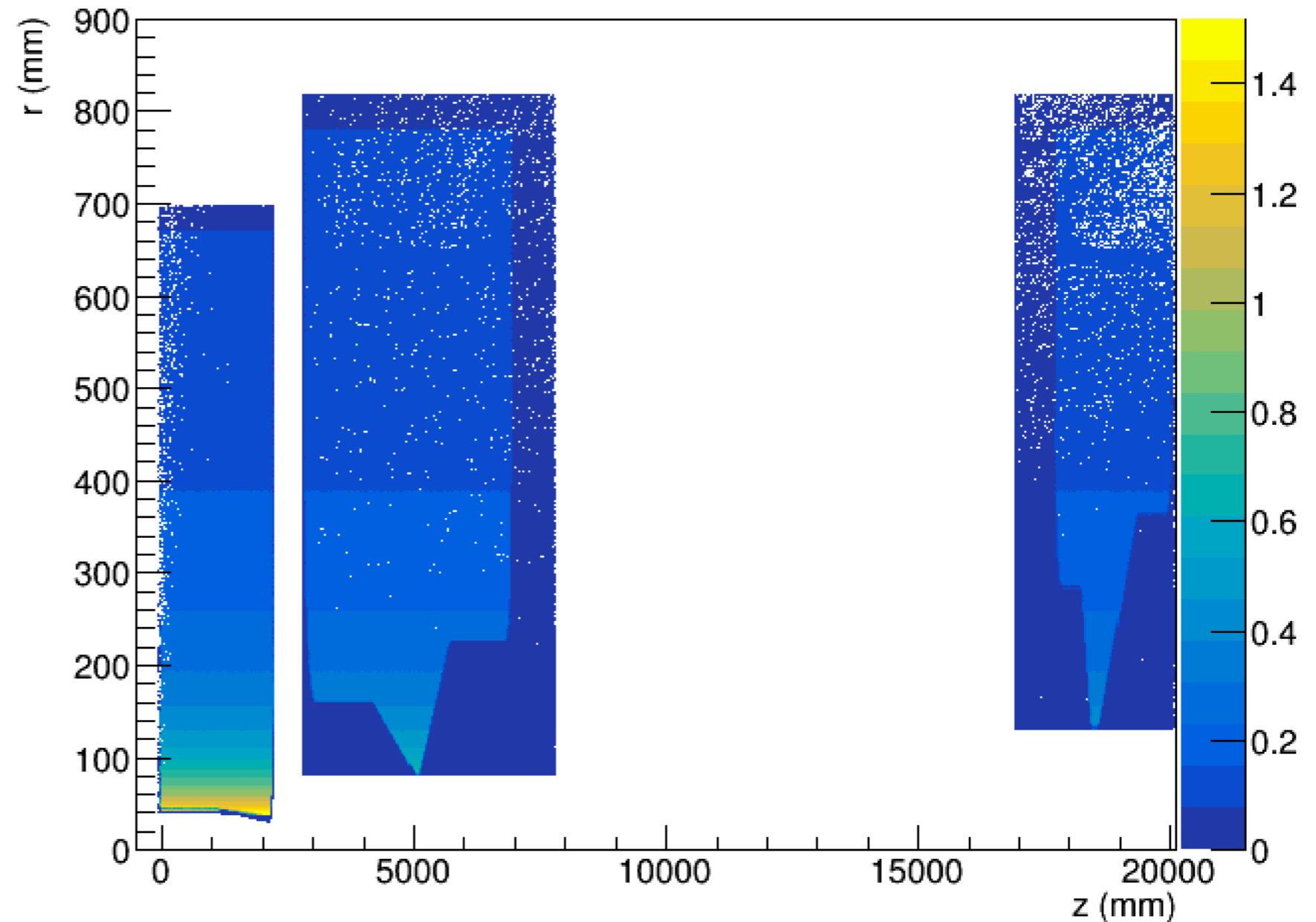
# Old vs new

- Geometry used in magnetic field function kept separately
- Checked that magnetic field picks up the changes



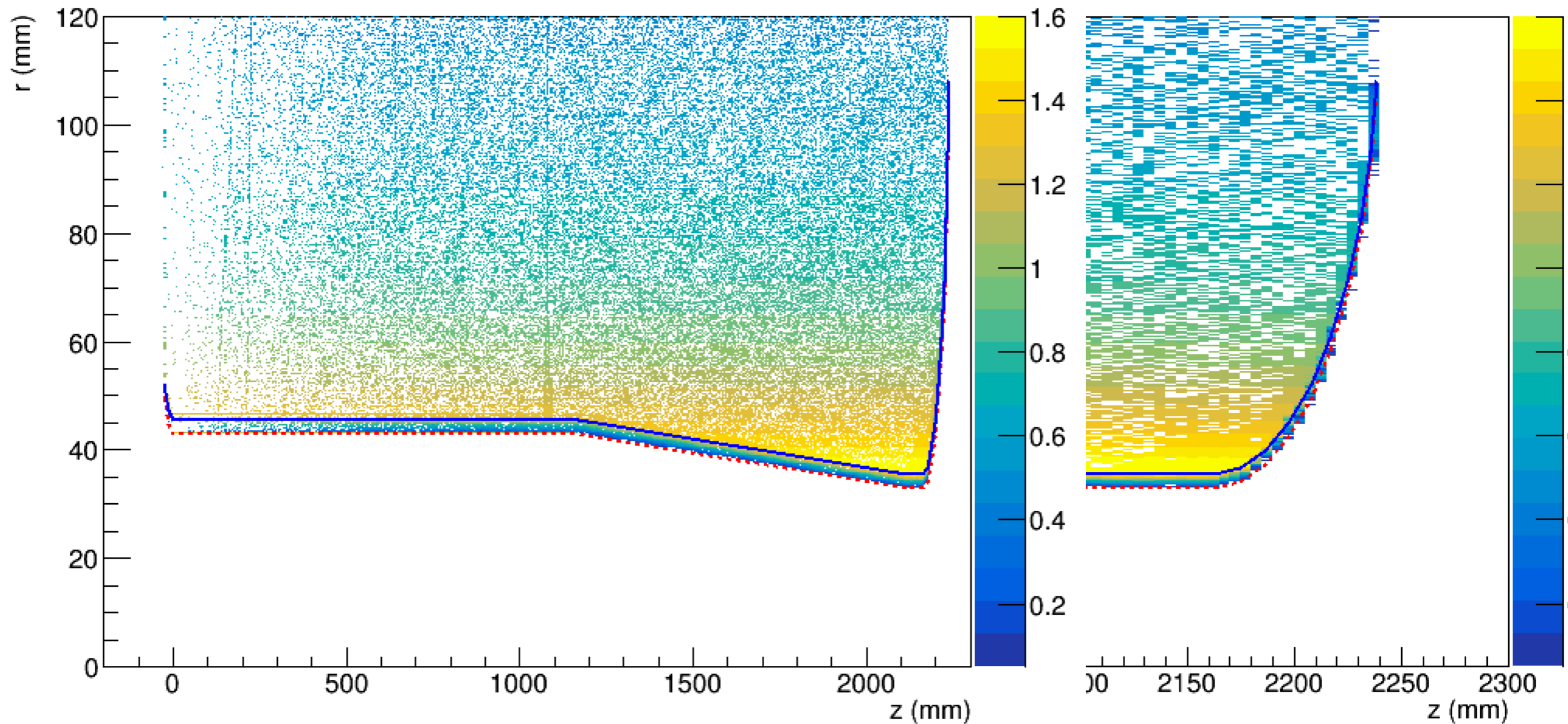
# Magnetic field

- Keeps separate geometry information
  - R/Z points for polycone generated during horn geometry construction
- Field in horn A goes up to 670mm



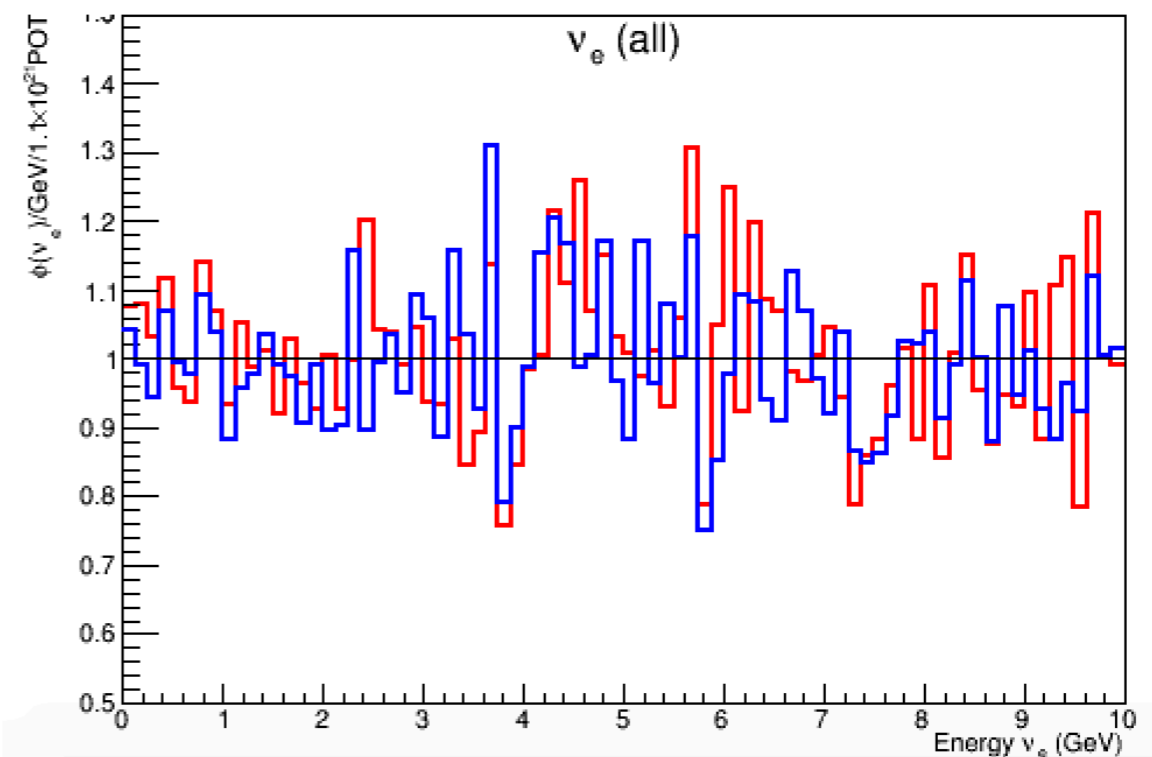
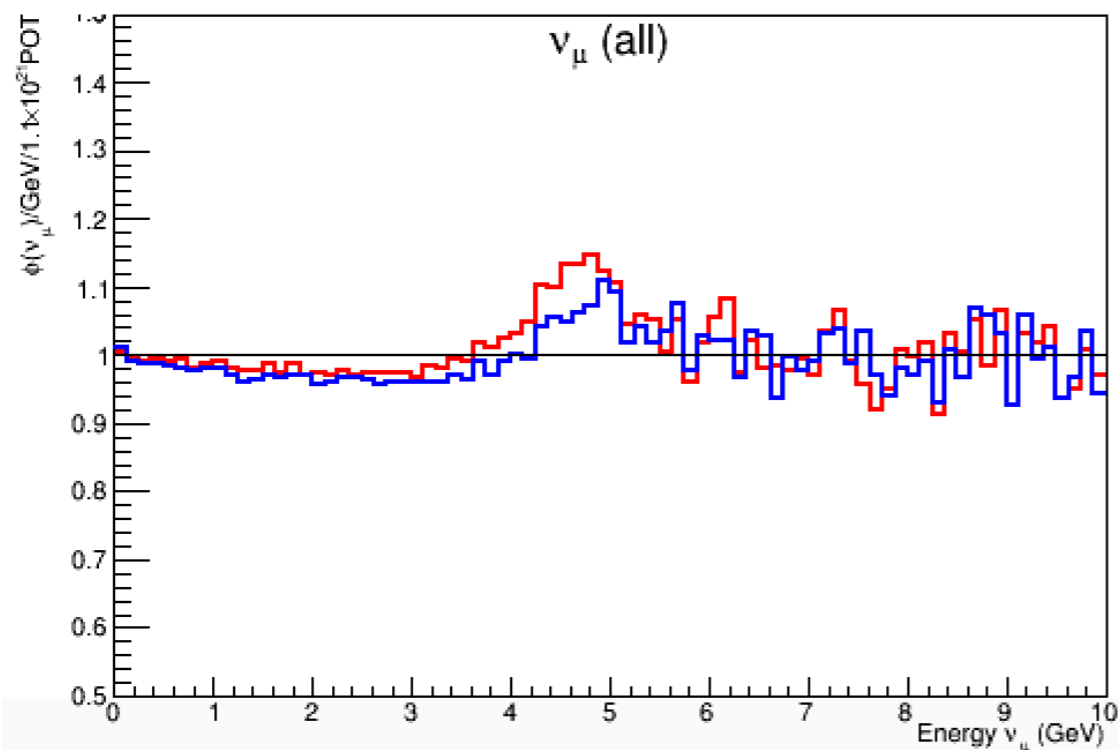
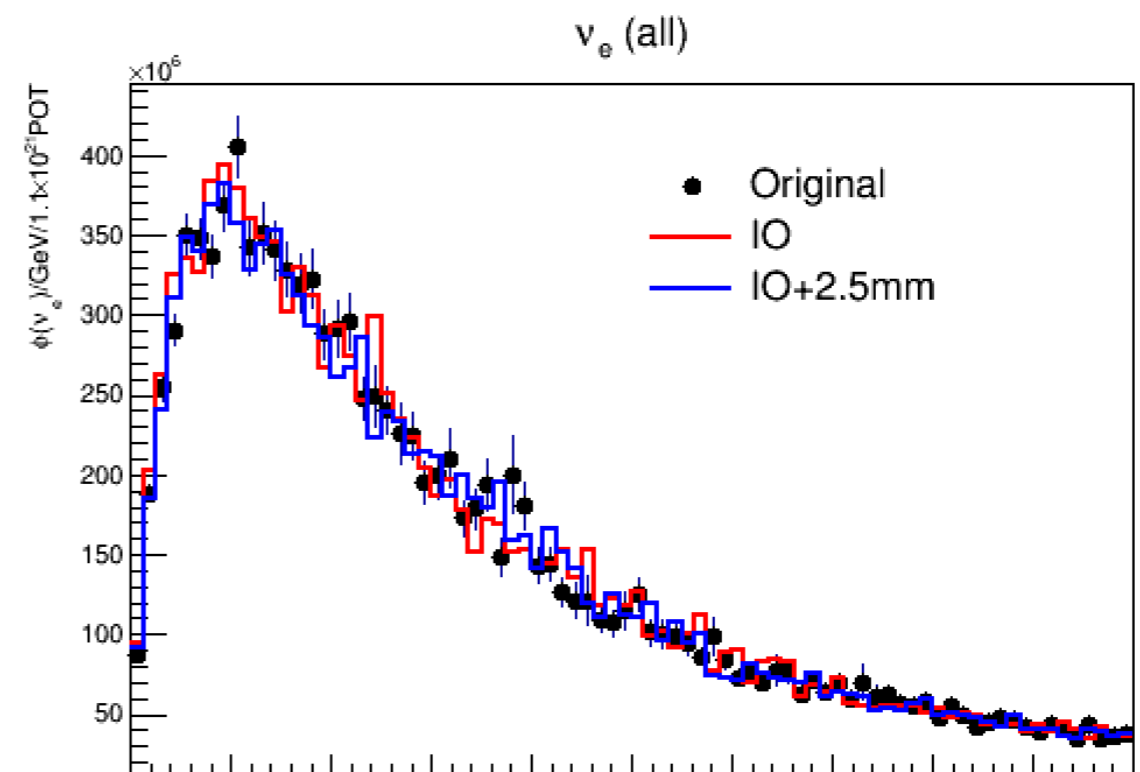
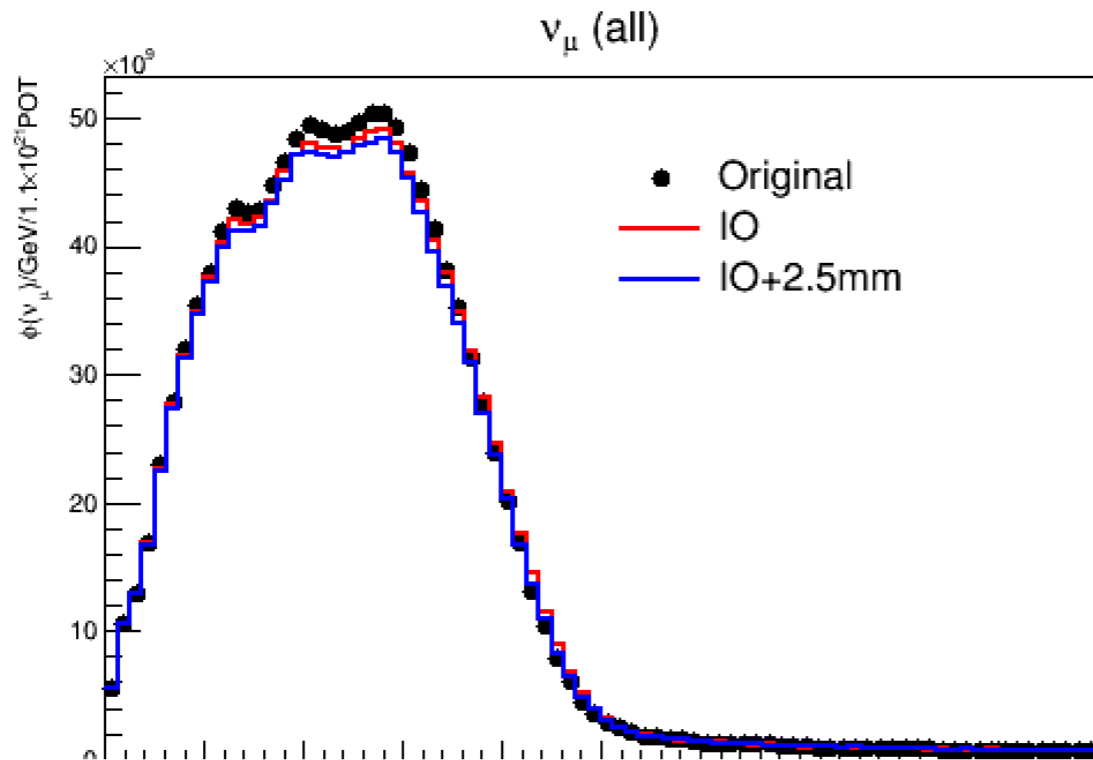
# Horn A

- Checked that magnetic field and new conductor shape consistent





# Neutrino flux



# Conclusion

- Implemented changes in horn A geometry
  - Thicker downstream transition from inner to outer conductor
  - Fixed upstream end
  - Changed inner conductor thickness from 2mm to 2.5mm
- Few more things to fix