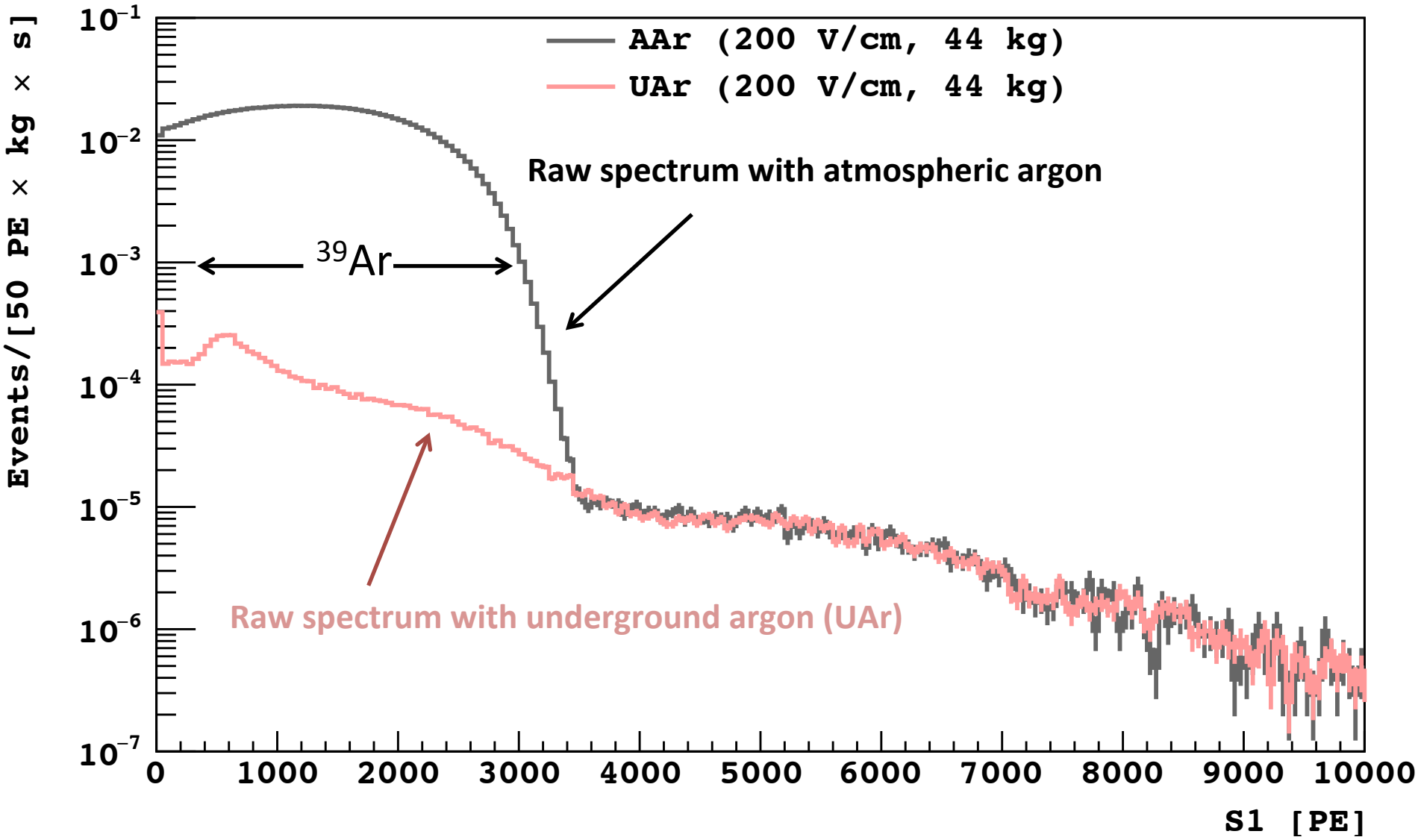
The Era of the use of low-radioactivity underground argon has begun

140 kg of purified low-radioactivity argon leaving the PAB at Fermilab on 12/17/2014 for its journey by ship across the Atlantic and then to the DarkSide-50 experiment at the LNGS in Italy

Last 15 kg sent by air 3/12/2015

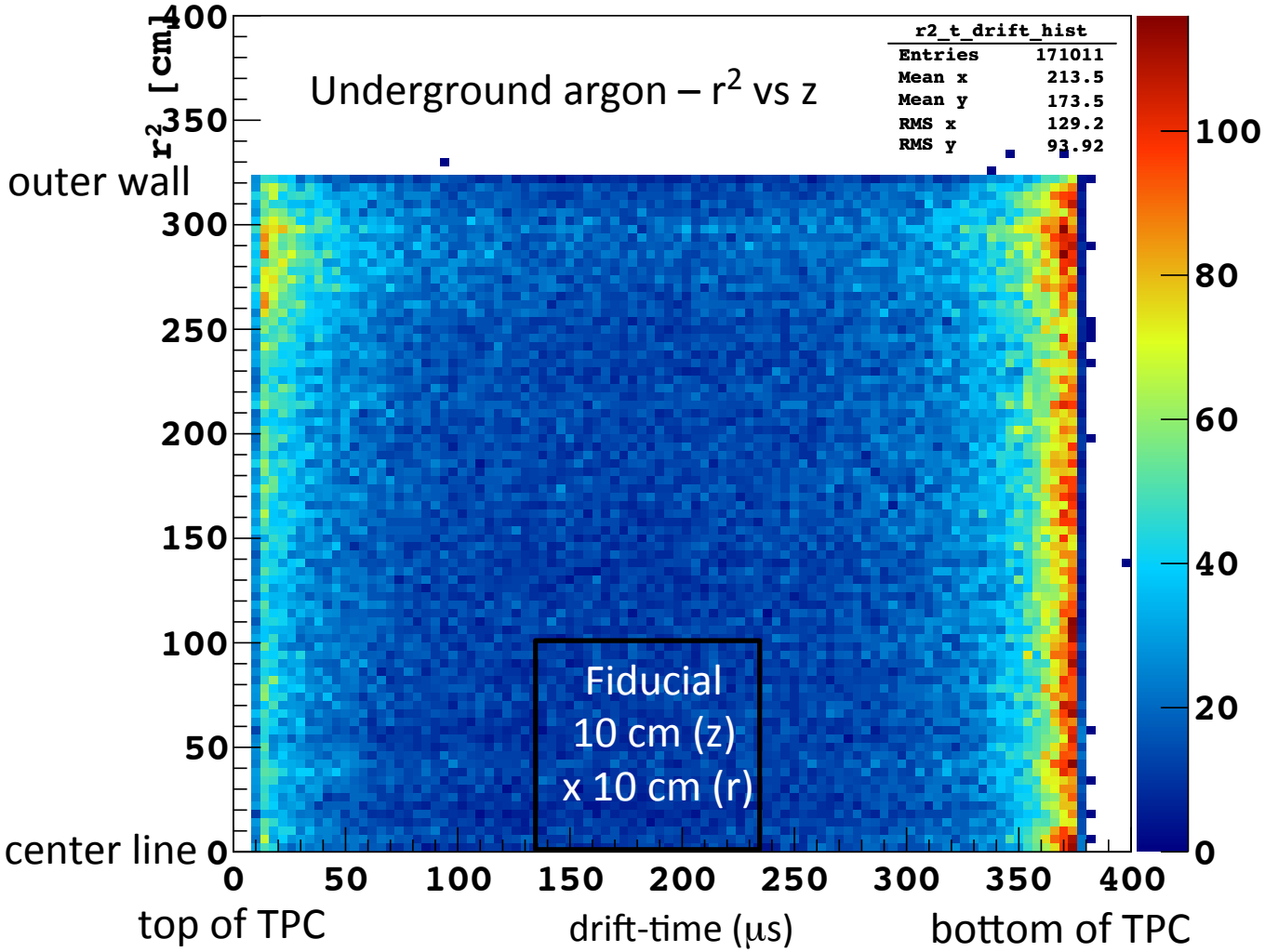
Total sent 155 kg – filling required 153.5 kg.

atmospheric and underground argon at 200 V/cm



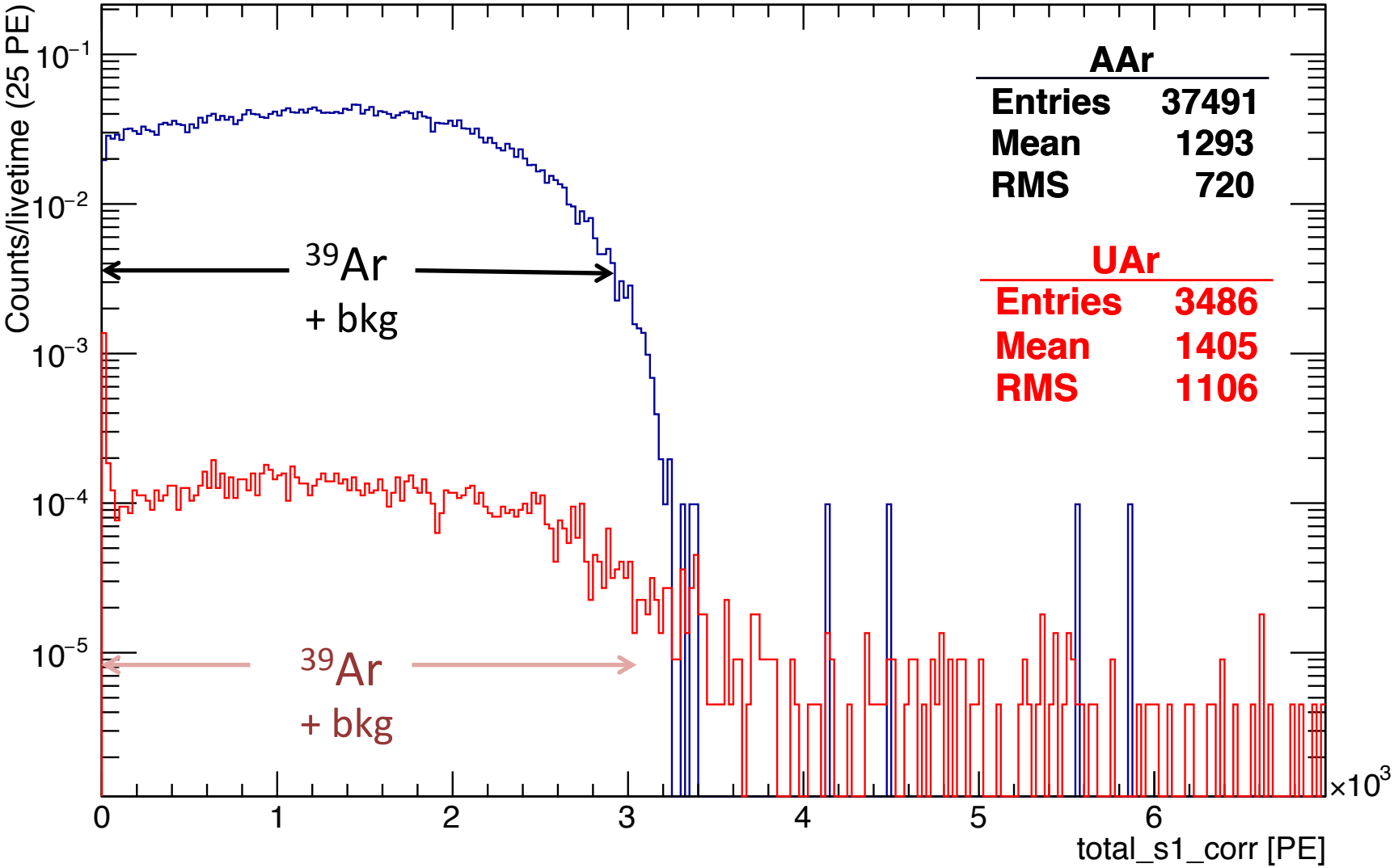
note the consistency between UAr and AAr beyond ^{39}Ar end-point

Distribution of events in the TPC - the radioactivity of PMTs at the top & bottom is evident



To see remaining ^{39}Ar, cut on fiducial region away from top and bottom and walls

Comparison of raw spectra from AAr and UAr in fiducial region of TPC



Depletion > 150 from 1 kg (arXiv in 2012) – present estimate ~ 300