Statistics

Run of 65 MeV/c Beam, 500,000 events
Note: In flight pion decays are included in the statistics below

Total Pion Decays: 499,898

Pion Decay Location	# of Decays	% total beam	Mean Decay Location	RMS
Upstream Scintillator	2417	0.483%	-64.07	9.14E-03
Upstream Degrader	1632	0.326%	-65.89	0.2621
Target Foil	25,811	5.163%	1.85E-04	2.15E-03
Downstream Degrader	197	0.039%	65.71	0.2076
Downstream Scintillator	3,345	0.669%	64.07	8.82E-03
Totals	33,402	6.682%		

4841 of the resultant daughter muons from pi decays throughout the detector decay in the target
This is about 1% of the incident pion beam.

for 500,000 pion decays generated only in the scintillators and degraders,
(generated from stored locations of pion decays produced by the original 65 MeV/c beam)

Daughter Muons that reach Target foil from:	Number	% of total muons	Fraction of original Pion Beam	Mean Decay Location	RMS	Mean Spin Distribution	Spin RMS
Upstream Scintillator	4053	0.811%	1.231E-04	-64.08	9.72E-03	-0.6292	9.86E-02
Upstream Degrader	1051	0.210%	3.191E-05	-65.64	9.87E-04	-0.8626	8.76E-02
Downstream Degrader	486	0.097%	1.476E-05	65.64	6.89E-02	0.8056	0.1214
Downstream Scintillator	5583	1.117%	1.695E-04	64.08	9.61E-03	0.6248	9.95E-02
Totals	11173	2.235%	3.393E-04				

Stopped Pion Statistics

65 MeV/c incident beam 500,000 events

Pion Stopping location	# of stops	% of original incident beam	# of daughter muons that stop in target	% of original beam
Everywhere	155093	31.02%	not measured	
Target Foil	25804	5.16%	1048	0.21%

Run of 500,000 stopped pions, generated from stored locations of stopped pions produced by the original beam.

Pion Stopping location	# of daughter muons that stop in target	% of events generated	% of original beam
Everywhere	9547	1.91%	0.592%
Target Foil	3244	0.65%	0.201%
Surface of Scintillators	75	0.02%	0.005%