ECAL Trigger Rates

	rate entering the EC (kHZ)		
Region	Full	High	Low
e	458	243	215
pi-	6.1E+05	3.4E+05	2.7E+05
pi+	3.4E+05	1.8E+05	1.5E+05
Gamma(Pi0)*	8.4E+07	4.2E+07	4.3E+07
p*	5.5E+04	2.4E+04	3.1E+04
Sum	8.5E+07	4.3E+07	4.3E+07
	p<1 GeV rate entering the EC (kHZ)		
	6.9E+07	3.4E+07	3.4E+07
	trigger rate for p>1 GeV (kHZ)		
e	288	153	135
pi-	3.8E+03	2.1E+03	1.7E+03
pi+	3.3E+02	1.9E+02	1.5E+02
Gamma(Pi0)*	4	4	0
p*	180	100	80
P > 1 GeV Sum	4.7E+03	2.6E+03	2.1E+03
	trigger rate for p<1 GeV (kHZ)		
P < 1 GeV Sum*	2.3E+03	1.2E+03	1.1E+03
	Total Trigger Rate (kHz)		
Total	6.9E+03	3.8E+03	3.2E+03

*preCDR

LGC Trigger Rates

rate entering the EC (kHZ)	
Region	Full
e	458
pi-	6.1E+05
pi+	3.4E+05
Gamma(Pi0)*	8.4E+07
p*	5.5E+04
Sum	8.5E+07
Physics trigger rate for p>1 GeV (kHZ)	
e	413
pi-	194.16
pi+	2.3E+01
Gamma(Pi0)*	4
p*	180
Total Physics	8.1E+02
Bkg. trigger rate	
Total Bkg	1.9E+03
Total Trigger Rate (kHz)	
Total	2.7E+03

*preCDR

*Micheal's last col. Meeting

Total Trigger Rate (Estimation)

Rate entering the EC (kHZ)	
Region	Full
e	458
pi-	6.1E+05
pi+	3.4E+05
Gamma(Pi0)*	8.4E+07
p*	5.5E+04
Sum	8.5E+07
Physics trigger rate for p>1 GeV (kHZ)	
e	272
pi-	1.1E+01
pi+	5.7E-01
Gamma(Pi0)*	4
p*	180
Total Coin. Physics Trig.	4.7E+02
EC Total Trigger	6.6E+03
LGC Total Trigger	2.7E+03
Acc. Coin. in 30 ns	5.4E+02
Total Trigger Rate (kHz)	
Total Phys Trigger	1.0E+03
per sector	33.68

From July-2014 Collaboration Meeting Talk by M. Paolone

Accidental trigger rates per sector

- SIDIS accidental rates are relatively small.
- PVDIS rates are greater, but improved overtime with better baffle design.

PVDIS	Old 6 plane baffle (MHz)	Not as old 11 plane baffle (MHz)
1 or more pe's per sector	4.94	2.99
2 or more pe's per sector	3.44	1.93
1 or more pe's in two different PMTs	2.50	1.56

SIDIS	Rate per sector (MHz)
1 or more pe's per sector	0.319
2 or more pe's per sector	0.219
1 or more pe's in two different PMTs	0.128

PVDIS needs updating with latest geometries / baffles.

Rates are large, but manageable:
EC + LGC gives < 20 kHz per sector

From PreCDR			
Region	Full	High	Low
	rate entering the EC (kHZ)		
e	413	148	265
pi-	510000	270000	240000
pi+	210000	100000	120000
Gamma(Pi0)	84000000	42000000	43000000
p	55000	24000	31000
Sum	84775413	42394148	43391265
	p<1 GeV rate entering the EC (kHZ)		
	94088364	47044182	47044182
	trigger rate for p>1 GeV (kHZ)		
e	321	80	231
pi-	4800	3400	1400
pi+	280	110	170
Gamma(Pi0)	4	4	0
p	180	100	80
Sum	5585	3694	1881
	trigger rate for p<1 GeV (kHZ)		
Sum	3100	1600	1500