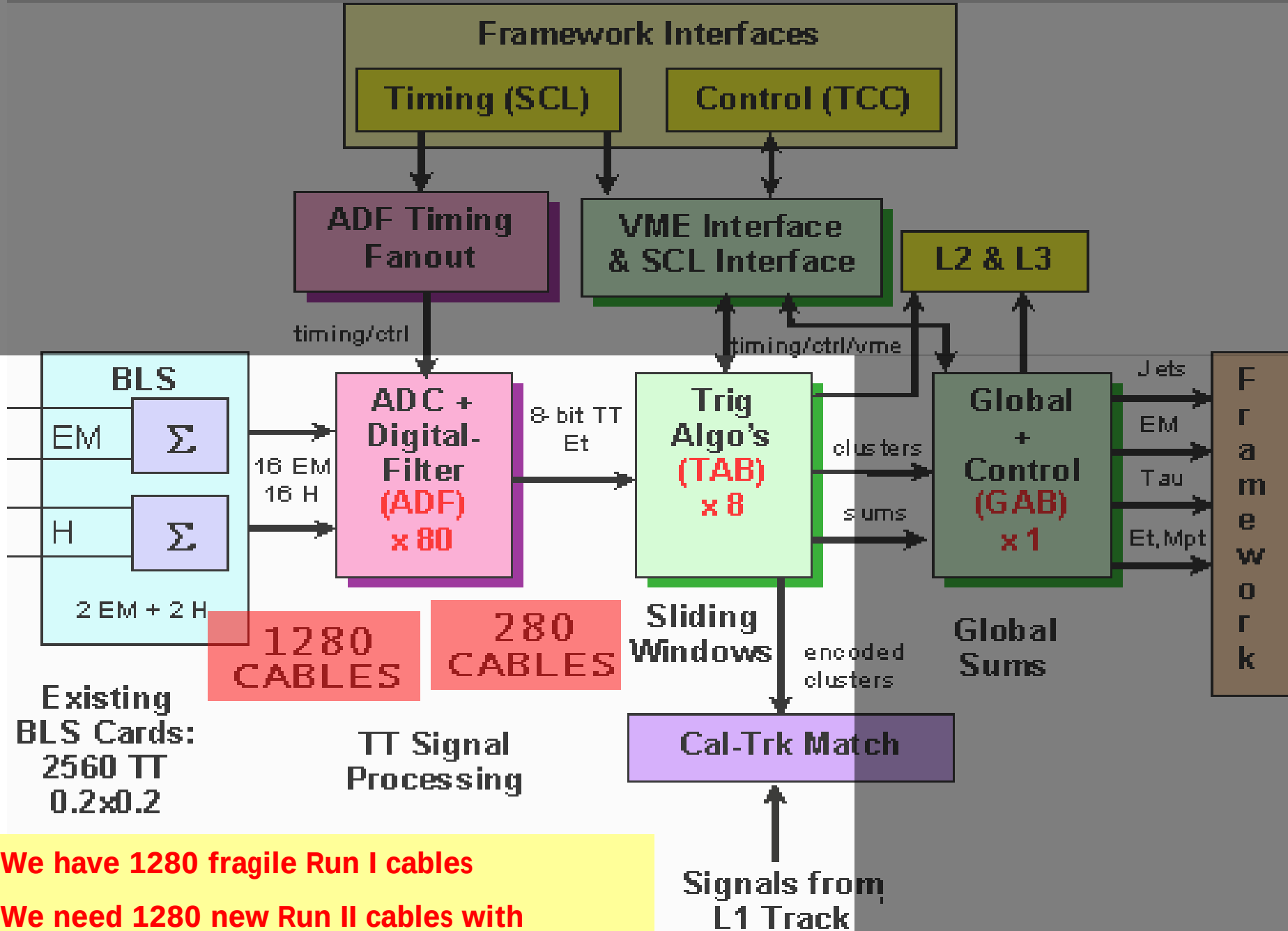


Run IIB L1CAL Upgrade Trigger Cabling

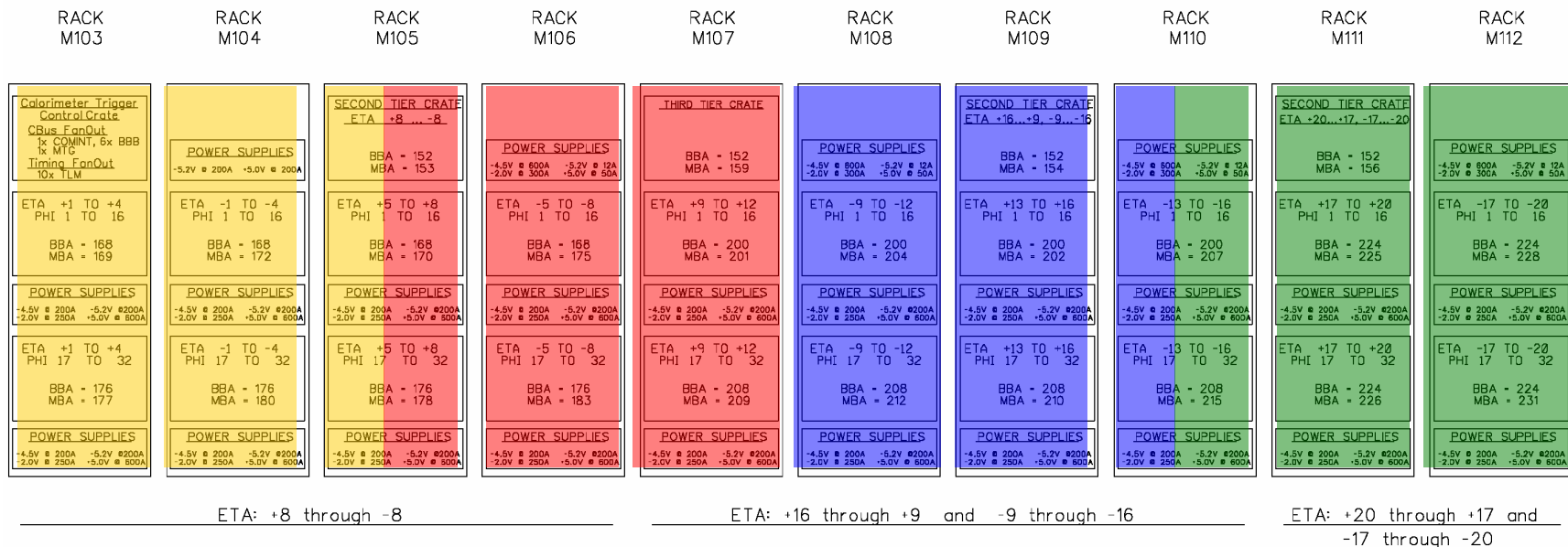


- We have 1280 fragile Run I cables
- We need 1280 new Run II cables with transition panel

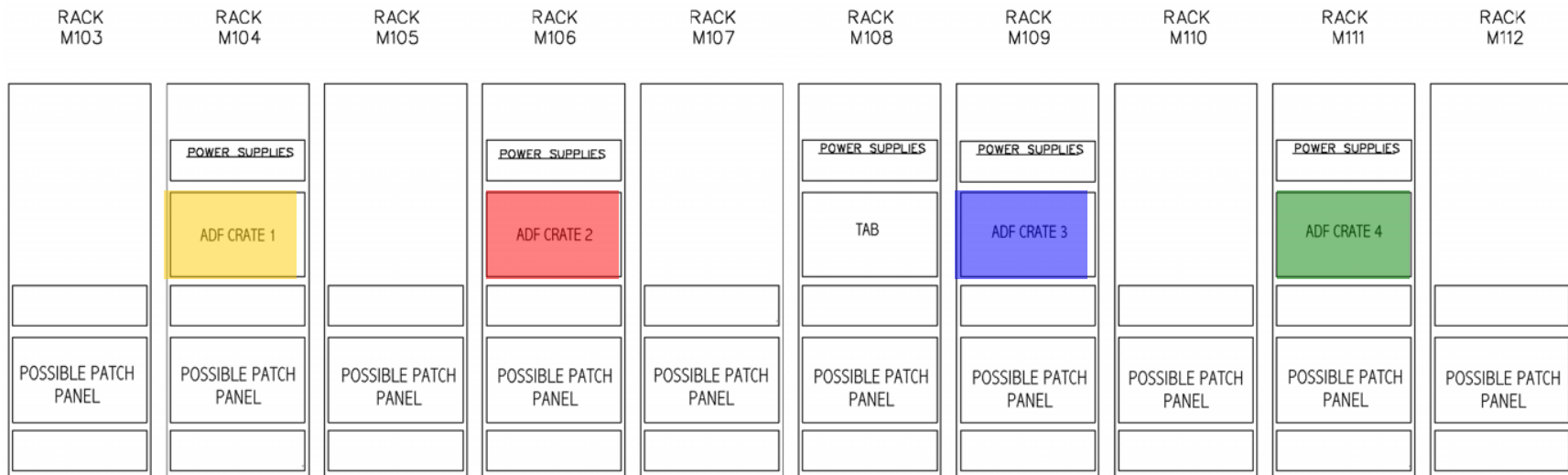
Diagram of Existing L1 CAL Run I Trigger Rack Layout



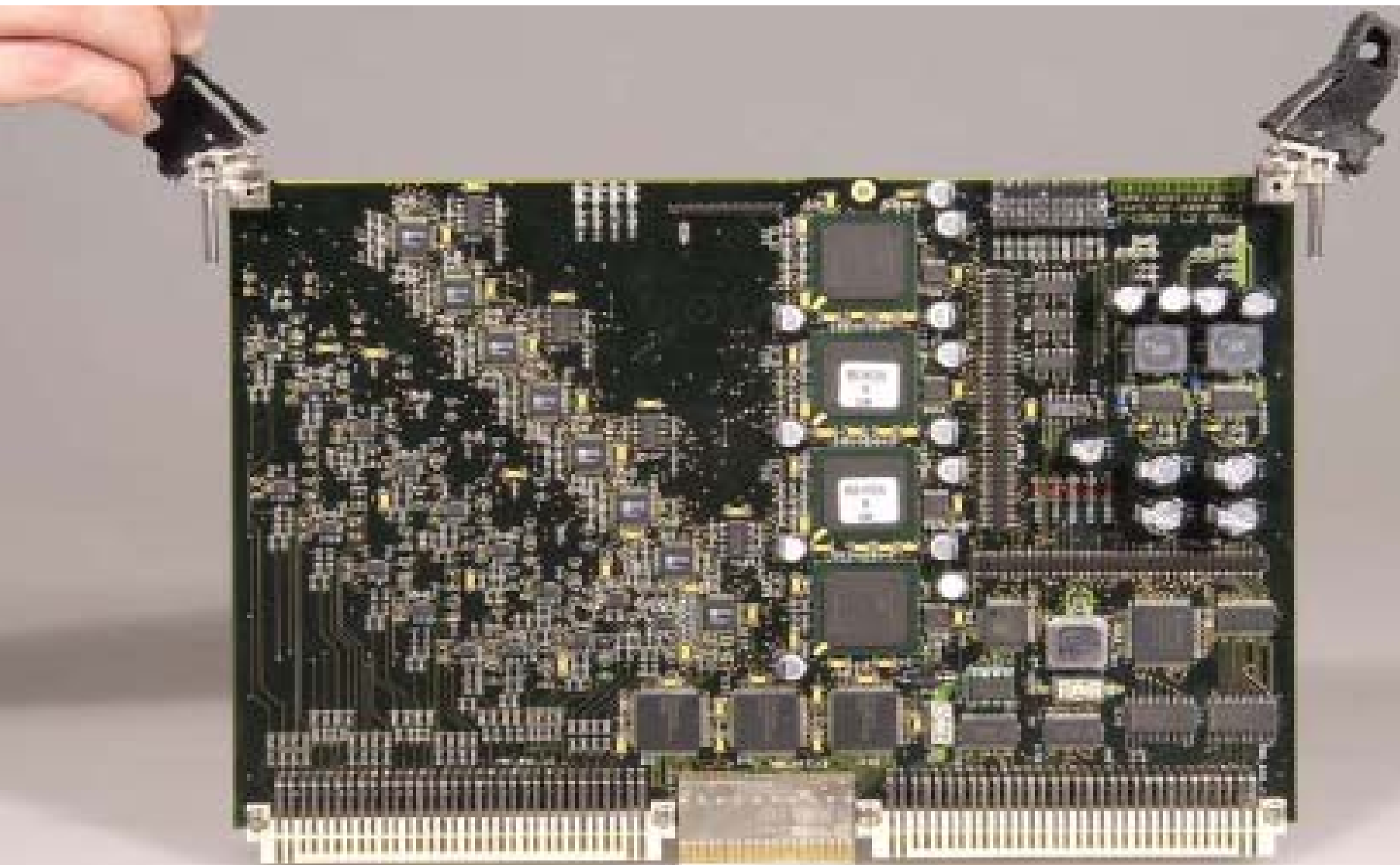
Run I L1 CAL Trigger Current Rack Layout



Draft of Run IIB L1 CAL Upgrade Trigger Rack Layout



ADF Prototype Board



TAB Board Prototype

Sliding Windows
Chips (x10)

VME/SCL

L2/L3 Output
(optical)

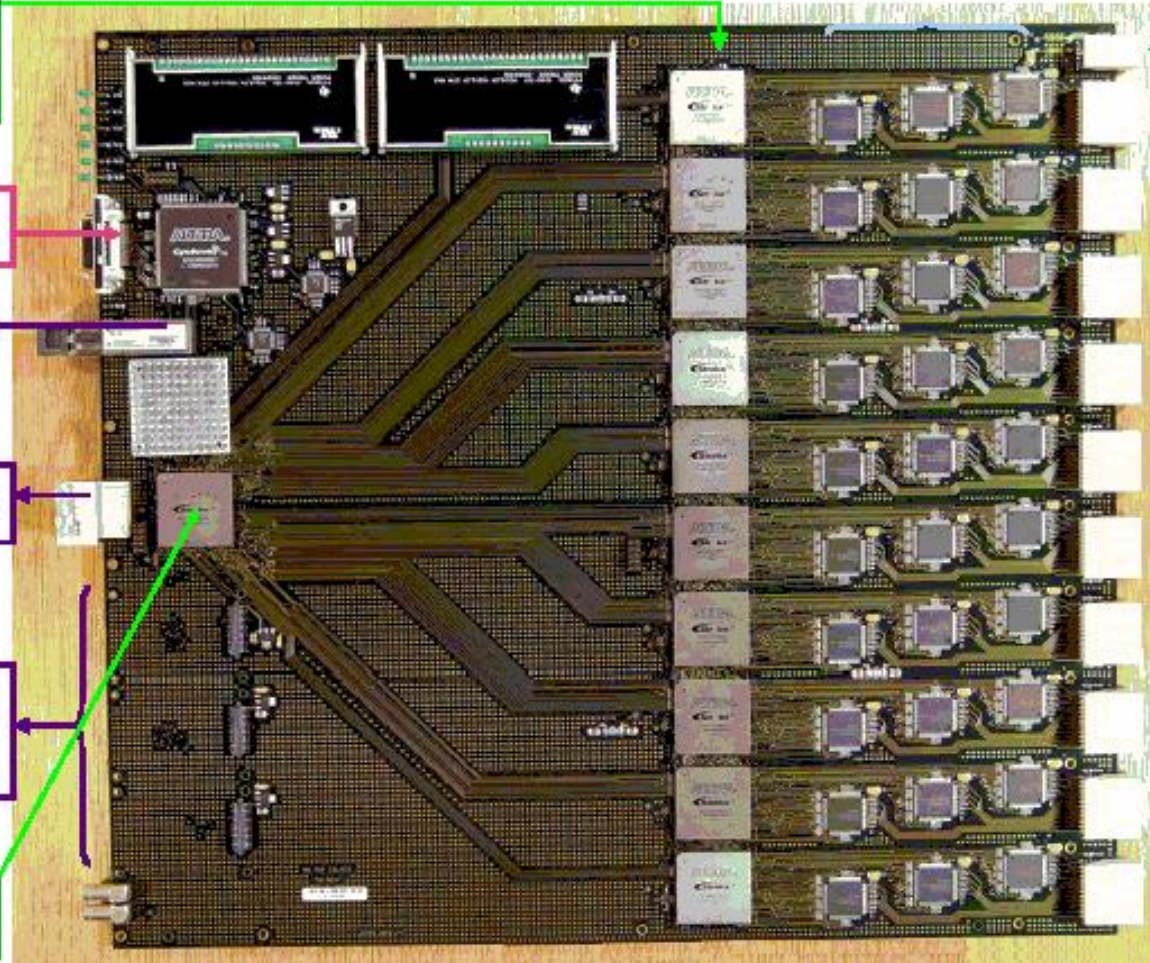
Output to GAB

Output to
Cal-Track (x3)

Global Chip

power

ADF Inputs (x30)



19 February 2004

Mario Camuyrano & Alan Stone

ADF Boards – Trigger Eta & Phi

ADF Board – Trigger Eta & Phi Distribution									
Trigger Eta vs Phi	Current Rack	1 4	5 8	9 12	13 16	17 20	21 24	25 28	29 32
-17 –20	M112	73	74	75	76	77	78	79	80
-13 –16	M110	57	58	59	60	61	62	63	64
-9 –12	M108	41	42	43	44	45	46	47	48
-5 –8	M106	25	26	27	28	29	30	31	32
-1 –4	M104	9	10	11	12	13	14	15	16
1 4	M103	1	2	3	4	5	6	7	8
5 8	M105	17	18	19	20	21	22	23	24
9 12	M107	33	34	35	36	37	38	39	40
13 16	M109	49	50	51	52	53	54	55	56
17 20	M111	65	66	67	68	69	70	71	72

ADF Output Distribution to TAB

TAB Board # Trigger Phi SW Chip vs Trigger Eta	1			2			3			4		
	29-32	1-4	5-8	1-4	5-8	9-12	5-8	9-12	13-16	9-12	13-16	17-20
	A	B	C	A	B	C	A	B	C	A	B	C
1_____ -20 -17	80	73	74	73	74	75	74	75	76	75	76	77
2_____ -16 -13	64	57	58	57	58	59	58	59	60	59	60	61
3_____ -12 -9	48	41	42	41	42	43	42	43	44	43	44	45
4_____ -8 -5	32	25	26	25	26	27	26	27	28	27	28	29
5_____ -4 -1	16	9	10	9	10	11	10	11	12	11	12	13
6_____ 1 4	8	1	2	1	2	3	2	3	4	3	4	5
7_____ 5 8	24	17	18	17	18	19	18	19	20	19	20	21
8_____ 9 12	40	33	34	33	34	35	34	35	36	35	36	37
9_____ 13 16	56	49	50	49	50	51	50	51	52	51	52	53
10_____ 17 20	72	65	66	65	66	67	66	67	68	67	68	69

ADF Output Distribution to TAB

TAB Board #	5			6			7			8		
Trigger Phi	13 16	17 20	21 24	17 20	21 24	25 28	21 24	25 28	28 32	25 28	28 32	1 4
SW Chip # vs Trigger Eta	A	B	C	A	B	C	A	B	C	A	B	C
1_____ -20 -17	76	77	78	77	78	79	78	79	80	79	80	73
2_____ -16 -13	60	61	62	61	62	63	62	63	64	63	64	57
3_____ -12 -9	44	45	46	45	46	47	46	47	48	47	48	41
4_____ -8 -5	28	29	30	29	30	31	30	31	32	31	32	25
5_____ -4 -1	12	13	14	13	14	15	14	15	16	15	16	9
6_____ 1 4	4	5	6	5	6	7	6	7	8	7	8	1
7_____ 5 8	20	21	22	21	22	23	22	23	24	23	24	17
8_____ 9 12	36	37	38	37	38	39	38	39	40	39	40	33
9_____ 13 16	52	53	54	53	54	55	54	55	56	55	56	49
10_____ 17 20	68	69	70	69	70	71	70	71	72	71	72	65

TAB Inputs from ADF Boards

ADF BOARD	TAB inputs		
	A	B	C
1	SW 16	SW 6	SW 76
2	SW 26	SW 16	SW 6
3	SW 36	SW 26	SW 16
4	SW 46	SW 36	SW 26
5	SW 56	SW 46	SW 36
6	SW 66	SW 56	SW 46
7	SW 76	SW 66	SW 56
8	SW 6	SW 76	SW 66
9	SW 15	SW 5	SW 75
10	SW 25	SW 15	SW 5
11	SW 35	SW 25	SW 15
12	SW 45	SW 35	SW 25
13	SW 55	SW 45	SW 35
14	SW 65	SW 55	SW 45
15	SW 75	SW 65	SW 55
16	SW 5	SW 75	SW 65
17	SW 17	SW 7	SW 77
18	SW 27	SW 17	SW 7
19	SW 37	SW 27	SW 17
20	SW 47	SW 37	SW 27
21	SW 57	SW 47	SW 37
22	SW 67	SW 57	SW 47

59	SW 32	SW 22	SW 12
60	SW 42	SW 32	SW 22
61	SW 52	SW 42	SW 32
62	SW 62	SW 52	SW 42
63	SW 72	SW 62	SW 52
64	SW 2	SW 72	SW 62
65	SW 20	SW 10	SW 80
66	SW 30	SW 20	SW 10
67	SW 40	SW 30	SW 20
68	SW 50	SW 40	SW 30
69	SW 60	SW 50	SW 40
70	SW 70	SW 60	SW 50
71	SW 80	SW 70	SW 60
72	SW 10	SW 80	SW 70
73	SW 11	SW 1	SW 71
74	SW 21	SW 11	SW 1
75	SW 31	SW 21	SW 11
76	SW 41	SW 31	SW 21
77	SW 51	SW 41	SW 31
78	SW 61	SW 51	SW 41
79	SW 71	SW 61	SW 51
80	SW 1	SW 71	SW 61

Summary

- Recommend
 1. One ADF crate/rack
 2. Transition panels for old-to-new trigger cables
 - Can be rack based between ADF racks
 3. Cable trays from each ADF rack to the TAB rack as each TAB will receive cable inputs from each ADF crate
- Coming soon
 - Spreadsheet
 - Missing transition panel & GAB
 - D0 Note