Tests of TOF and WC detectors at 3F experimental room in Kyoto University

(Ver. 2015/4/3, Toshiyuki Gogami)

Run	*Name*	*Date*	*Trigger*	*HV*	*Threshold [mV]*	*Rate [Hz]*	*Event*	*Remarks*
1	Toshiyuki Gogami (dragon)	2014/10/10 18:30	1	1	250	10	5000	Rough analysis --> TOF resolution (sigma) = 1.5 ns
2	dragon	2014/10/10 19:00	1	1	250	10	50000	
3	dragon	2014/10/10 20:00	1	1	400	8	50000	Threshold was changed to 400 mV from 250 mV from this run. Rough analysis --> TOF resolution = 1.3 ns (sigma) without correction.
4	dragon	2014/10/11 9:40	1	1	400	8	1500	Attenuator of 8db was applied to ADC1 for test.
5	dragon	2014/10/11 9:55	1	1	400	8	50000	Attenuations of 24db and 28db were applied to ADC1 and ADC2, respectively for test.
6	dragon	2014/10/11 16:00	1	1	400	8	5000	Attenuations of 24db were applied to all ADC channels. (test run)
7	dragon	2014/10/11 16:30	1	1	400	7	50000	Attenuations of 24db (Atte. 24) were applied to all ADC channels.
8	dragon		1	1	400	7	50000	Atte. 24
9	dragon		1	1	400	7	50000	Atte. 24
10	dragon		1	1	400	7	50000	Atte. 24
11	dragon		1	1	400	7	50000	Atte. 24
12	dragon		1	1	400	7	50000	Atte. 24
13	dragon		1	1	400	7	50000	Atte. 24
14	dragon		1	1	400	7	50000	Atte. 24
15	dragon		1	1	400	7	50000	Atte. 24
16	dragon		1	1	400	7	50000	Atte. 24
17	dragon		1	1	400	7	50000	Atte. 24
18	dragon		1	1	400	7	50000	Atte. 24
19	dragon		1	1	400	7	50000	Atte. 24
20	dragon		1	1	400	7	50000	Atte. 24
21	dragon		1	1	400	7	50000	Atte. 24
22	dragon		1	1	400	7	50000	Atte. 24
23	dragon		1	1	400	7	50000	Atte. 24
24	dragon		1	1	400	7	50000	Atte. 24
25	dragon		1	1	400	7	50000	Atte. 24
26	dragon		1	1	400	7		Terminated in the middle. Conditions are the same with the previous run.
27	dragon	2014/10/13 12:00	1	1	400	7	5000	Attenuator values were changed from 24 db for test. Attenuations of 16 db (Atte. 16) were applied to all ADC channels. ADC looks OK
28	dragon	2014/10/13 12:20	1	1	400	7		Atte. 16 PC was crashed during this run.
29	dragon	2014/10/14 10:00	1	1	400	7	50000	Atte. 16
30	dragon	2014/10/14 12:30	1	1	400	7	20000	Atte. 16
31	dragon	2014/10/13 13:20	1	1	400	7		Atte. 16 Terminated in the middle by myself.
32	Kazuma Kato (K.Kato)	2014/10/14 10:00	1	1	400	7	5000	Atte. 16
33	K.Kato		1	1	400	7	50000	Atte. 16 DAQ PC was crashed in the middle of data taking.

34	K.Kato dragon	2014/10/14 17:30	1	1	400	7	50000	Atte. 16 DAQ PC was crashed in the previous run. Therefore, I rebooted the DAQ PC and restarted taking data.
35	dragon	2014/10/15 10:30	1	1	400	7	50000	Atte. 16
36	dragon		1	1	400	7	50000	Atte. 16
37	dragon		1	1	400	7	50000	Atte. 16
38	dragon		1	1	400	7	50000	Atte. 16
39	dragon		1	1	400	7	50000	Atte. 16
40	dragon		1	1	400	7	50000	Atte. 16
41	dragon		1	1	400	7	50000	Atte. 16
42	dragon		1	1	400	7	50000	Atte. 16
43	dragon		1	1	400	7	50000	Atte. 16
44	dragon		1	1	400	7	50000	Atte. 16
45	dragon		1	1	400	7	50000	Atte. 16
46	dragon	2014/10/16 15:10	1	1	400	7	5000	Atte. 16 ***Data stream was changed***: ADC1 ADC2 ADC3 ADC4 TDC1 TDC2 TDC3 TDC4 NTDC1 NTDC2 NADC1 NADC2 (NADC: Noritake ADC, NTDC: Noritake TDC) Attenuator channels were swapped, CH1 <--> CH3
47	dragon		1	1	400	7	50000	Attenuator channels were swapped, CH1 <--> CH3
48	dragon	2014/10/16 18:22	1	1	400	7	50000	Atte. 16 Attenuator channels were returned to the original positions. Delay modules were swapped, CH1 <--> CH3
49	dragon		1	1	400	7	50000	same as run48.
50	dragon		1	1	400	7	50000	same as run48.
51	dragon		1	1	400	7	50000	same as run48.
52	dragon		1	1	400	7	50000	same as run48.
53	dragon		1	1	400	7	50000	same as run48.
54	dragon		1	1	400	7	50000	same as run48.
55	dragon		1	1	400	7	50000	same as run48.
56	dragon		1	1	400	7	50000	Delay modules were retuened to the original position.
57	dragon K.Kato T.Noritake	2014/10/17 18:15	1	1	400	7	50000	Center of scintillator(TDC3,4) : 25cm -> 13.5cm Upper TOF detector (CH3 and CH4) was displaced by 11.5cm from the center.
58	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
59	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
60	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
61	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
62	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.

63	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
64	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
65	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
66	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
67	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
68	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
69	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
70	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
71	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
72	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
73	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
74	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
75	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
76	dragon K.Kato T.Noritake		1	1	400	7	50000	Same as run57.
77	dragon	2014/10/20 10:15	1	1	400	7	50000	Same as run57.
78	dragon		1	1	400	7	50000	Same as run57.
79	dragon		1	1	400	7	50000	Same as run57.
80	dragon		1	1	400	7	50000	Same as run57.
81	dragon		1	1	400	7	50000	Same as run57.
82	dragon		1	1	400	7	50000	Same as run57.
83	dragon		1	1	400	7	50000	Same as run57.
84	dragon		1	1	400	7	50000	Same as run57.
85	dragon		1	1	400	7	50000	Same as run57.
86	dragon		1	1	400	7	50000	Same as run57.
87	dragon		1	1	400	7	50000	Same as run57. This run is terminated by Noritake on purpose.
88	T.Noritake dragon	2014/10/21	1	1	400	7	50000	Applied voltage for MPPC (Noritake's detector) was changed to 68 V from 70 V.
89	T.Noritake dragon		1	1	400	7	50000	Same as run88.
90	T.Noritake dragon		1	1	400	7	50000	Same as run88.
91	T.Noritake dragon		1	1	400	7	50000	Same as run88.
92	T.Noritake dragon		1	1	400	7	50000	Same as run88.
93	T.Noritake dragon		1	1	400	7	50000	Same as run88.

94	dragon	2014/10/22 15:00	1'	1	400(TOF1,2,3,4), 200(TOF5)	7	5000	Output data stream was changed. TADC1 TADC2 TADC3 TADC4 TTDC1 TTDC2 TTDC3 TTDC4 (TOF detector) NTDC1 NTDC2 NADC1 NADC2 (Noritake's detector) TADC5 TTDC5 (Small scintillation detector) ADC gate was delayed to reduce the number of use of variable delay modules, but TDC start was not changed. ADC timing of all channels were re-adjusted. TOF detector is moved to the center position (center crossing).
95	dragon		1'	1	400, 200	7	10000	Same as run94.
96	dragon	2014/10/22 16:20	1'	1	400, 80	7	20000	Discriminator threshold for TOF: CH5 (small scintillation counter) was changed to 80 mV from 200 mV. Data taking was terminated during run97.
97	dragon		1'	1	400, 80	7	50000	Same as run96. Data taking was terminated during this run.
98	dragon	2014/10/22 18:00	1'	1	400, 80	7	50000	Conditions are the same as run96.
99	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
100	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
101	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
102	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
103	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
104	dragon	2014/10/23 11:00	1'	1	400, 80	7	50000	Conditions are the same as run96. Data taking was crashed during this run. So, DAQ PC was rebooted after this run.
105	dragon	2014/10/23 14:00	1'	1	400, 80	7	50000	Conditions are the same as run96.
106	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
107	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
108	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
109	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
110	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
111	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.
112	dragon	2014/10/23	1'	1	400, 80	7	50000	Conditions are the same as run96.
113	dragon		1'	1	400, 80	7	50000	Conditions are the same as run96.

114	dragon	2014/10/24	1'	1	400, 80	7	50000	**Water Cherenkov detector was installed !!!** **Data stream was changed**: TADC1 TADC2 TADC3 TADC4 TTDC1 TTDC2 TTDC3 TTDC4 NTDC1 NTDC2 NADC1 NADC2 TADC5 TTDC5 WADC1(H11284,ZK6920) WADC2(H6522,LA1542) WADC3(H6522,LA1537) HV setting for WC --> CH1:H11284:1800V, CH2-3:H6522:2400V. Gate width was changed to 140 ns from 80 ns. Upper TOF counter was moved by 11.5 cm to CH1 side in order to set the TOF detector over the center of water Cherenkov detector. This run was terminated by our hand.
115	dragon, K.Takenaka	2014/10/24 19:45	1'	1	400, 80	7	50000	Applied voltages to the water Cherenkov detector were changed. WC-CH1:1800 V --> 2000 V WC-CH2,3:2400 V --> 2600 V This run was terminated by hand.
116	dragon, K.Takenaka	2014/10/24	1'	1	400, 80	7	50000	Conditions are the same as run115.
117	dragon, K.Takenaka		1'	1	400, 80	7	50000	Conditions are the same as run115.
118	dragon, K.Takenaka		1'	1	400, 80	7	50000	Conditions are the same as run115.
119	dragon, K.Takenaka		1'	1	400, 80	7	50000	Conditions are the same as run115.
120	dragon, K.Takenaka		1'	1	400, 80	7	50000	Conditions are the same as run115.
121	dragon, K.Takenaka		1'	1	400, 80	7	50000	Conditions are the same as run115.
122	dragon, K.Takenaka		1'	1	400, 80	7	50000	Conditions are the same as run115.
123	dragon, K.Takenaka		1'	1	400, 80	7	50000	Conditions are the same as run115. DAQ PC was crashed during this run.
124	dragon	2014/10/27 9:00	1'	1	400, 80	7	50000	DAQ PC was rebooted before this run was started.
125	dragon		1'	1	400, 80	7	50000	Data taking was terminated by hand.
126	dragon	2014/10/27 13:30	1'	1	400, 80	7	50000	Conditions are the same as run115.
127	dragon	2014/10/27 16:15	1'	1	400, 80	7	50000	Conditions are the same as run115.
128	dragon, K.Takenaka	2014/10/27 18:00	2	1	TOF: 400 TOF5: 80			LED: 5.4 V, 35 ns
129	dragon, K.Takenaka		2	1	400, 80			LED: 5.6 V, 35 ns
130	dragon, K.Takenaka		2	1	400, 80			LED: 5.8 V, 35 ns
131	dragon, K.Takenaka		2	1	400, 80			LED: 5.9 V, 35 ns

132	dragon, K.Takenaka		2	1	400, 80			LED: 5.9 V, 35 ns
133	dragon, K.Takenaka		2	1	400, 80			LED: 5.85 V, 35 ns
134	dragon, K.Takenaka		2	1	400, 80			LED: 5.85 V, 35 ns
135	dragon, K.Takenaka		2	1	400, 80			LED: 5.82 V, 35 ns
136	dragon, K.Takenaka		2	1	400, 80			LED: 5.82 V, 35 ns
137	dragon, K.Takenaka		2	1	400, 80			LED: 5.80 V, 35 ns, junk ?
138	dragon, K.Takenaka		2	1	400, 80			LED: 35 ns
139	dragon, K.Takenaka		2	1	400, 80			LED: 35 ns
140	dragon, K.Takenaka		2	1	400, 80			LED: 5.80 V, 8 ns
141	dragon, K.Takenaka		2	1	400, 80			LED: 5.80 V, 8 ns
142	dragon, K.Takenaka		2	1	400, 80			LED: 9.30 V, 9 ns
143	dragon, K.Takenaka		2	1	400, 80			LED: 9.50 V, 9 ns (OFF)
144	dragon, K.Takenaka		2	1	400, 80			LED: 9.50 V, 9 ns (OFF)
145	dragon, K.Takenaka		2	1	400, 80			LED: 9.50 V, 9 ns
146	dragon, K.Takenaka		2	1	400, 80			LED: 9.50 V, 9 ns
147	dragon, K.Takenaka		2	1	400, 80			LED: 9.70 V, 9 ns WC1 looks OK.
148	dragon, K.Takenaka		2	1	400, 80			LED: 9.70 V, 9 ns WC1 looks OK.
149	dragon, K.Takenaka		2	1	400, 80			LED: 9.40 V, 10 ns
150	dragon, K.Takenaka		2	1	400, 80			LED: 9.50 V, 10 ns
151	dragon, K.Takenaka		2	1	400, 80			LED: 9.50 V, 10 ns
152	dragon, K.Takenaka		2	1	400, 80			LED: 9.60 V, 10 ns WC1 is OK. GOOD !!
153	dragon, K.Takenaka		2	1	400, 80			LED: 9.80 V, 10 ns
154	dragon, K.Takenaka		2	1	400, 80			LED: 9.79 V, 10 ns
155	dragon, K.Takenaka		2	1	400, 80			LED: 9.65 V, 10 ns WC3 looks OK.
156	dragon, K.Takenaka		2	1	400, 80			LED: 9.65 V, 10 ns WC3 looks OK.
157	dragon, K.Takenaka		2	1	400, 80			LED: 9.65 V, 10 ns WC3 looks OK.
158	dragon, K.Takenaka		2	1	400, 80			LED: 9.67 V, 10 ns WC2 looks OK.
159	dragon, K.Takenaka		2	1	400, 80			LED: 9.67 V, 10 ns WC2 looks OK.
160	dragon, K.Takenaka		2	1	400, 80			LED: 9.67 V, 10 ns high stat.
161	dragon, K.Takenaka		2	1	400, 80			LED: 9.57 V, 10 ns high stat.
162	dragon, K.Takenaka		2	1	400, 80			LED: 9.57 V, 10 ns high stat.
163	dragon, K.Takenaka		2	1	400, 80			LED: 9.54 V, 10 ns
164	dragon, K.Takenaka		2	1	400, 80			LED: 9.54 V, 10 ns
165	dragon, K.Takenaka	2014/10/27 20:43	1'	1	400, 80	7	50000	Data taking with cosmic ray was restarted.
166	dragon, K.Takenaka		1'	1	400, 80	7	50000	
167	dragon, K.Takenaka		1'	1	400, 80	7	50000	
168	dragon, K.Takenaka		1'	1	400, 80	7	50000	
169	dragon, K.Takenaka		1'	1	400, 80	7	50000	
170	dragon, K.Takenaka		1'	1	400, 80	7	50000	

171	dragon, K.Takenaka		1'	1	400, 80	7	50000	MPPC configuration was changed during run 171 (2014/10/28).
172	dragon, K.Takenaka		1'	1	400, 80	7	50000	Data taking was terminated in run172.
173	dragon	2014/10/28 17:00	1'	1	400, 80	7	50000	
174	dragon		1'	1	400, 80	7	50000	
175	dragon		1'	1	400, 80	7	50000	
176	dragon		1'	1	400, 80	7	50000	
177	dragon		1'	1	400, 80	7	50000	
178	dragon		1'	1	400, 80	7	50000	
179	dragon		1'	1	400, 80	7	50000	
180	dragon		1'	1	400, 80	7	50000	
181	dragon		1'	1	400, 80	7	50000	Data taking was terminated in this run.
182	dragon		3	1	400, 80	25	50000	
183	dragon		4	1		1300	100000	WC1 self trigger
184	dragon		5	1	TOF: 400 TOF5: 80 WC: 30	750	50000	WC2 self trigger **Data stream was changed!!** (TDCs of WC were added.) TADC1 TADC2 TADC3 TADC4 TTDC1 TTDC2 TTDC3 TTDC4 NTDC1 NTDC2 NADC1 NADC2 TADC5 TTDC5 WADC1 WADC2 WADC3 WTDC1 WTDC2 WTDC3
185	dragon		6	1	400, 80, 30	400	50000	WC3 self trigger
186	dragon		2	1	400, 80, 30		50000	LED: 9.54 V, 10 ns (OFF)
187	dragon		2	1	400, 80, 30		50000	LED: 9.54 V, 10 ns
188	dragon		2	1	400, 80, 30		50000	LED: 9.54 V, 9 ns (OFF)
189	dragon		2	1	400, 80, 30		50000	LED: 9.54 V, 9 ns
190	dragon		2	1	400, 80, 30		50000	LED: 9.54 V, 12 ns
191	dragon		2	1	400, 80, 30		50000	LED: 9.60 V, 9 ns
192	dragon		2	1	400, 80, 30		50000	LED: 9.80 V, 9 ns (OFF)
193	dragon		2	1	400, 80, 30		50000	LED: 9.80 V, 9 ns
194	dragon		2	1	400, 80, 30		50000	LED: 9.90 V, 9 ns
195	dragon		2	1	400, 80, 30		50000	LED: 9.85 V, 9 ns
196	dragon		2	1	400, 80, 30		50000	LED: 9.88 V, 9 ns (OFF)
197	dragon		2	1	400, 80, 30		50000	LED: 9.88 V, 9 ns
198	dragon		2	1	400, 80, 30		50000	LED: 9.87 V, 9 ns
199	dragon		2	1	400, 80, 30		50000	LED: 9.875 V (1 mV offset), 9 ns
200	dragon		2	1	400, 80, 30		50000	LED: 9.875 V (1 mV offset), 9 ns
201	dragon		2	1	400, 80, 30		50000	LED: 9.88 V, 9 ns
202	dragon	2014/10/29 17:00	1'	1	400, 80, 30			just for check. ADC and TDC were ok, but the trigger condition was wrong (see also RUN203).
203	dragon, K.Takenaka	2014/10/29 17:30	1'	1	400, 80, 30			Small scintillation detector was moved by 25 cm toward 2-PMT side. Junk. Concidence condition was wrong.
204	dragon, K.Takenaka	2014/10/29 17:39	1'	1	400, 80, 30	7		This run was terminated by hand.
205	dragon, K.Takenaka	2014/10/29 17:50	1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
206	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
207	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
208	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
209	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
210	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
211	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.

212	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
213	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 204.
214	dragon, K.Takenaka	2014/10/30 18:40	1'	1	400, 80, 30	7	50000	Small scintillation detector was moved by 25 cm toward WC CH1 (H11284) from the cetner of WC.
215	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
216	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
217	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
218	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
219	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
220	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
221	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
222	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run214.
223	dragon, K.Takenaka	2014/10/31 17:00	7	1	400, 80, 30		50000	Sr90 @ 0cm (center) Offset parameter is 8ns.
224	dragon, K.Takenaka		7	1	400, 80, 30		50000	Sr90 @ 5cm which is closer to CH2.
225	dragon, K.Takenaka		7	1	400, 80, 30		50000	Sr90 @ 10cm which is closer to CH2.
226	dragon, K.Takenaka		7	1	400, 80, 30		50000	Sr90 @ 15cm which is closer to CH2
227	dragon, K.Takenaka		7	1	400, 80, 30		50000	Sr90 @ 20cm which is closer to CH2.
228	dragon, K.Takenaka		7	1	400, 80, 30		50000	Sr90 @ 25cm which is closer to CH2.
229	dragon, K.Takenaka		7	1	400, 80, 30		50000	Sr90 @ −5cm which is closer to CH1.
230	dragon, K.Takenaka		7	1	400, 80, 30		50000	Sr90 @ −20cm which is closer to CH1.
231	dragon, K.Takenaka	2014/10/31 18:00	1'	1	400, 80, 30	7	50000	Small scintillation detector was moved by 12.5 cm toward WC CH1 (H11284) from the cetner of WC.
232	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 231.
233	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 231.
234	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 231.
235	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run 231. Data taking was stopped due to crash in run235.
236	dragon	2014/11/4 9:10	1'	1	400, 80, 30	7	50000	Conditions are the same as run 231. PC was rebooted, and data taking was restarted
237	dragon		1'	1	400, 80, 30	7	50000	Conditions are the same as run 231.
238	dragon		1'	1	400, 80, 30	7	50000	Conditions are the same as run 231.
239	dragon		1'	1	400, 80, 30	7	50000	Conditions are the same as run 231. Data taking was terminated in this run by hand.
240	dragon, K.Takenaka	2014/11/4 17:50	1'	1	400, 80, 30	7	50000	The small scintillation detector was moved to the center of the water Cherenkov detector.

241	dragon	2014/11/5 9:50	1'	1	400, 80, 30	7	50000	Conditions are the same as run240. DAQ PC was rebooted, and data taking was restarted.
242	dragon		1'	1	400, 80, 30	7	50000	DAQ PD was crashed in run242.
243	dragon, K.Takenaka	2014/11/5 18:15	1'	1	400, 80, 30	7	50000	DAQ PC was rebooted, and data taking was restarted.
244	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run240.
245	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run240.
246	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run240.
247	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run240.
248	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run240.
249	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run240.
250	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run240.
251	dragon, K.Takenaka	2014/11/6 18:10	1'	1	400, 80, 30	7	50000	Small scintillation detector was moved to 2-PMT side by 12.5 cm from the center of the water Cherenkov detector.
252	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run251.
253	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run251.
254	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run251.
255	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run251.
256	dragon, K.Takenaka		1'	1	400, 80, 30	7	50000	Conditions are the same as run251. Data taking was terminated by hand in run 256 to check TDC7 which is TDC of small scintillation detector. There is no datum for TDC7....
257	dragon	2014/11/7 9:50	1'	1	400, 30, 30	7	50000	It was found that a discriminator module for TDC7 line was dead.... So, it was moved to different module. --> Looks OK.
258	dragon		1'	1	400, 30, 30	7	50000	Conditions are the same as run257.
259	dragon		1'	1	400, 30, 30	7	50000	RUN259 was terminated by hand. Poweroutage will be in this weekend, so data taking is stopped now. See you next week !!!!
260	dragon	2014/11/10 9:50	3	1	400, 30, 30	27	50000	Data taking was started after everything was turned ON. Trigger is a self-trigger of WC to check the pedestals of TOF's ADC. This run was terminated by hand.
261	dragon	2014/11/10 9:50	1'	1	400, 30, 30	5	50000	Conditions are the same as run257.
262	dragon		1'	1	400, 30, 30	5	50000	
263	dragon		1'	1	400, 30, 30	5	50000	
264	dragon		1'	1	400, 30, 30	5	50000	

265	dragon	2014/11/10 21:00	1'	2	400, 30, 30	5	50000	HVs were changed: WC-CH1(H11284): 2000-->1900 V WC-CH2(H6522): 2600-->2650 V WC-CH3(H6522): 2600-->2650 V
266	dragon		1'	2	400, 30, 30	5	50000	Conditions are the same as run265.
267	dragon		1'	2	400, 30, 30	5	50000	Conditions are the same as run265.
268	dragon		1'	2	400, 30, 30	5	50000	Conditions are the same as run265.
269	dragon		1'	2	400, 30, 30	5	50000	Conditions are the same as run265.
270	dragon		1'	2	400, 30, 30	5	50000	Conditions are the same as run265.
271	dragon		1'	2	400, 30, 30	5	50000	Conditions are the same as run265.
272	dragon, K.Takenaka	2014/11/11 16:30	2	2	400, 30, 30		50000	LED: 9.24 V, 10ns
273	dragon, K.Takenaka		2	2	400, 30, 30		50000	LED: 9.18 V, 10 ns
274	dragon, K.Takenaka		2	2	400, 30, 30		50000	LED: 9.18 V, 10 ns
275	dragon, K.Takenaka		2	2	400, 30, 30		50000	LED: 9.18 V, 10 ns
276	dragon, K.Takenaka		2	3	400, 30, 30		50000	HVs were changed: WC-CH1(H11284): 1900 --> 1700 V WC-CH2(H6522): 2650 --> 2550 V WC-CH2(H6522): 2650 --> 2550 V LED: 9.18 V, 10 ns
277	dragon, K.Takenaka		2	3	400, 30, 30		150000	LED: 9.18 V, 10 ns
278	dragon, K.Takenaka	2014/11/11 17:30	1'	3	400, 30, 30	5	50000	Noticed that TDC1 and TDC3 are dead. This could be caused by discriminator for TDC line of TOF detector.
279	dragon, K.Takenaka		1'	3	400, 30, 30	5	50000	Conditions are the same as run278.
280	dragon, K.Takenaka		1'	3	400, 30, 30	5	50000	Conditions are the same as run278.
281	dragon, K.Takenaka		1'	3	400, 30, 30	5	50000	Conditions are the same as run278.
282	dragon, K.Takenaka		1'	3	400, 30, 30	5	50000	Conditions are the same as run278.
283	dragon, K.Takenaka		1'	3	400, 30, 30	5	50000	Conditions are the same as run278.
284	dragon, K.Takenaka		1'	3	400, 30, 30	5	50000	Conditions are the same as run278.
285	dragon, K.Takenaka		1'	3	400, 30, 30	5	50000	Conditions are the same as run278.
286								junk
287								junk
288	dragon, K.Takenaka	2014/11/11 17:15	2	3	400, 30, 30	-	-	LED: 9.18 V, 10 ns
289	dragon, K.Takenaka		2	3	400, 30, 30	-	-	LED: 9.16 V, 10 ns
290	dragon, K.Takenaka		2	3	400, 30, 30	-	-	LED: 9.17 V, 10 ns After this, HVs are changed.: WC-CH1(H11284): 1700 --> 2000 V WC-CH2(H6522): 2550 --> 2600 V WC-CH2(H6522): 2550 --> 2600 V
291	K.Takenaka	2014/11/13 17:15	1'	1	400, 30, 30	5	50000	10 degrees cosmic ray incident angle. Small plastic scintillator is closer to 2-PMT side.

292			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
293			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
294			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
295			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
296			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
297			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
298			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
299			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
300			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
301			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
302			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
303			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
304			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
305			1'	1	400, 30, 30	5	50000	Conditions are the same as run291.
306								junk
307								junk
308								junk
309	dragon, K.Takenaka	2014/11/28 14:00	2	1	400, 30, 30	–	–	LED: 4.20 V, 10 ns
310	dragon, K.Takenaka	2014/11/28 14:00	2	1	400, 30, 30	–	–	LED: 4.10 V, 10 ns
311			2	1	400, 30, 30	–	–	Conditions are the same as run310.
312	dragon, K.Takenaka	2014/11/28 14:40	1'	1	400, 30, 30	5	50000	−10 degrees cosmic ray incident angle(Opposite angle with respect to RUN291−). Small plastic scintillator is closer to 1−PMT side.
313			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
314			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
315			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
316			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
317			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
318			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
319			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
320			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
321			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
322			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
323			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
324			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
325			1'	1	400, 30, 30	5	50000	Conditions are the same as run312.
326			1'	1	400, 30, 30	5	50000	Conditions are the same as run312. HV2 was uninstalled and returned back to Niyama−san(2014/12/1, 10:15, Toshiyuki Gogami).

327	dragon	2014/12/2 10:30	2	1	400, 30, 30	–	50000	HV2 was reinstalled. HV setting was same as that of previous: CH1: −2310 V CH2: −2000 V CH3: −2000 V (Dead) CH4: −2600 V LED: 4.2 V, 10 ns WC-CH2(H6522) was dead..... So, HV for the corresponding channel was turned off after this run.
328	dragon	2014/12/2 10:50	8	1	400, 30, 30	–	–	WC self trigger.This run was terminated by hand in the middle.
329	dragon	2014/12/2 10:50	1'	1	400, 30, 30	6	50000	Dead discriminator [Lecroy825 ~~DSC5~~] ~~~~~~~~~~~~~~~~~~~~~~~~~ ~Circuit for TOF TDC line was changed: (OLD) 100 ns delay --> DISCRI (Dead) --> TDC (NEW) 100 ns delay --> TDC ~~~~~~~~~~~~~~~~~~~~~~~~~ ~ --> Data of TOF TDCs
330	dragon	2014/12/2 11:30	1'	1	400, 30, 30	6	50000	Detector setup is the same as RUN312. Data taking was terminated during RUN332.
331			1'	1	400, 30, 30	6	50000	Conditions are the same as run330.
332			1'	1	400, 30, 30	6	50000	Conditions are the same as run330.
333	dragon, K.Takenaka	2014/12/2 18:30	9	4	TOF1: 400 TOF2: 400			***Experimental setup was totaly changed !!!!*** TOF CH1 (labeled to be H7195-2, RD7241): 2000 V [Lower] TOF CH2 (labeled to be H7195-1, RD7198): 2000 V [Upper] Data taking was terminated by hand in the middile.
334	dragon, K.Takenaka	2014/12/2 18:30	9	5	TOF1: 20 TOF2: 20			Threshold was changed to 20 mV from 400 mV. Data taking was terminated by hand in the middile. HV setting was changed: TOF CH1 (labeled to be H7195-2, RD7241): 2300 V [Lower] TOF CH2 (labeled to be H7195-1, RD7198): 2300 V [Upper]
335	dragon, K.Takenaka	2014/12/2 19:00	9	5	20, 20			Attenuator was uninstalled from ADC line. Data taking was terminated by hand in the middile.
336	dragon, K.Takenaka	2014/12/2 20:00	9	5	20, 20	3.4	50000	Data taking was terminated during RUN342(2014/12/4 14:40, Toshiyuki Gogami).
337		2014/12/2 20:00	9	5	20, 20	3.4	50000	Conditions are the same as run336.

338		2014/12/2 20:00	9	5	20, 20	3.4	50000	Conditions are the same as run336.
339		2014/12/2 20:00	9	5	20, 20	3.4	50000	Conditions are the same as run336.
340		2014/12/2 20:00	9	5	20, 20	3.4	50000	Conditions are the same as run336.
341		2014/12/2 20:00	9	5	20, 20	3.4	50000	Conditions are the same as run336.
342		2014/12/2 20:00	9	5	20, 20	3.4	50000	Conditions are the same as run336.
343	dragon	2014/12/4 14:50	9	5	20, 20	2.5	50000	Upper scintillator was moved by 20 cm. sqrt(20.0*20.0 + 30.5*30.5) = 36.5 cm. Path length between two scintillators is now 36.5 − 30.5 = 6 cm longer than before. This is was terminated by hand. 2014/12/4 evening --> HVs for the plastic scintillators were turned off to install WC. Now the WC is set on a frame checking water leakage.
344	dragon	2014/12/5 11:00	9	5	20, 20	1.3	−	CH1(lower) position: 35 cm CH2(upper) position: 25 cm sqrt(20.0*20.0 + 30.5*30.5) = 36.5 cm. Path length between two scintillators is now 36.5 − 30.5 = 6 cm longer than that of RUN336. Now water Cherenkov detector is installed between the scintillators. This run was terminated in the middle.
345	dragon, K.Takenaka	2014/12/5	10	5	20, 20	−	−	The upper scintillator (CH2) disattached from the frame, and reattached.
346	dragon, K.Takenaka	2014/12/5 15:30	11	5	20, 20	−	−	
347	dragon, K.Takenaka	2014/12/5 15:30	9	5	20, 20	1.8	−	Conditions are the same as run344. This run was terminated by hand.
348	dragon, K.Takenaka	2014/12/5 18:50	9	5	20, 20	2.48	50000	Two scintillators were set horizontal. The distance is 20 cm between them.
349			9	5	20, 20	2.48	50000	Conditions are the same as run348. Cernel panic occred at run349 on 12/5.
350	T.Kohei	2014/12/8 14:20	9	6	200, 200	0.19	3000	Applied HVs of two scintillation counter used for trigger are changed from −2300 V to −2500 V. Discriminator threshold of two scintillators are changed from −20 mV to −200 mV. The two scintillators are put horizontally with a distance of 20 cm. An hour after the HV were changed, run350 started.
351	dragon, T.Kohei	2014/12/8 14:40	10	6	200, 200	−	−	TOF1 self−trigger.

352	dragon, K.Takenaka	2014/12/8 14:40	11	6	200, 200	–	–	TOF2 self-trigger.
353	dragon, T.Kohei	2014/12/8 14:45	9	6	200, 200	0.19	3000	
354			9	6	200, 200	0.19	3000	
355			9	5	200, 200	0.19	3000	
356			9	6	200, 200	0.19	3000	
357			9	6	200, 200	0.19	3000	
358			9	6	200, 200	0.19	3000	
359			9	6	200, 200	0.19	3000	
360			9	6	200, 200	0.19	3000	
361			9	6	200, 200	0.19	3000	
362			9	6	200, 200	0.19	3000	
363			9	6	200, 200	0.19	3000	
364			9	6	200, 200	0.19	3000	
365			9	6	200, 200	0.19	3000	
366			9	6	200, 200	0.19	3000	
367			9	6	200, 200	0.19	3000	
368			9	6	200, 200	0.19	3000	
369			9	6	200, 200	0.19	3000	
370	dragon	2014/12/10 18:30	9	6	200, 200	0.19	20000	Conditions are the same as RUN353.
371			9	6	200, 200	0.19	20000	Conditions are the same as RUN353.
372			9	6	200, 200	0.19	20000	Conditions are the same as RUN353.
373			9	6	200, 200	0.19	20000	Conditions are the same as RUN353. RUN373 is terminated at 14:37 on 12/8.
374	K.Takenaka	2014/12/12 18:30	9	7	100, 100	0.11	20000	Before these runs, TOF2 labeled H7195-1(RD7198) was replaced with H7195-3(RD7186) because the former seemed to be broken. HVs are changed from -2500V to -2400V because charege overflow is observed in the ADC histogram. Discriminator thresholds of TOF1,2 are changed from -200 to -100 mV. Configuration conditions are the same as RUN353.
375			9	7	100, 100	0.11	20000	Conditions are the same as run374.
376			9	7	100, 100	0.11	20000	Conditions are the same as run374.
377			9	7	100, 100	0.11	20000	Conditions are the same as run374.
378			9	7	100, 100	0.11	20000	Conditions are the same as run374.
379			9	7	100, 100	0.11	20000	Conditions are the same as run374.
380			9	7	100, 100	0.11	20000	Conditions are the same as run374.
381			9	7	100, 100	0.11	20000	Conditions are the same as run374.
382			9	7	100, 100	0.11	20000	Conditions are the same as run374.

383	K.Takenaka	2014/12/17 19:10	9	7	50, 50	0.05	20000	Test of window material. Window is acrylite#000 made by mitsubishi rayon. Distance between two trigger scintis is about 23 cm. Discriminator threshold for TOF1,2 is changed to 50 mV. PMT for WC is W-07(H11284,ZK6920). HV = -2000V for WC and -2400V for trigger scinti respectively. 2 hours after HV was applied, run383 started.
384	K.Takenaka	2014/12/17	2	7	50, 50	–	–	LED: 9.70 V, 11 ns in water
385			2	7	50, 50	–	–	Conditions are the same as run384.
386			2	7	50, 50	–	–	Conditions are the same as run384.
387	K.Takenaka	2014/12/17 19:40	2	7	50, 50	–	–	LED: 9.60 V, 11 ns in water
388			2	7	50, 50	–	–	Conditions are the same as run387.
389	K.Takenaka	2014/12/17 20:05	Pedestal	7	50, 50	–	–	During these runs, I typed run340 by mistake. So run340 might become pedestal data.
390			Pedestal	7	50, 50	–	–	
391	K.Takenaka	2014/12/17 20:20	9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
392			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
393			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
394			9	7	50, 50	0.05	20000	Conditions are the same as RUN383. Run394 is terminated, but there is no problem.
395			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
396			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
397			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
398			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
399			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
400			9	7	50, 50	0.05	20000	Conditions are the same as RUN383. Run400 is terminated somehow, but no problem.
401			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
402			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
403			9	7	50, 50	0.05	20000	Conditions are the same as RUN383. Run403 is terminated somehow, but no problem on 2014/12/24/6:13.
404			9	7	50, 50	0.05	20000	Conditions are the same as RUN383.
405	K.Takenaka	2014/12/24 17:10	2	7	50, 50	–	–	LED: 9.60 V, 11 ns in water
406	K.Takenaka	2014/12/24 17:25	2	7	50, 50	–	–	LED: 9.52 V, 11 ns in water
407	K.Takenaka	2014/12/24 17:29	2	7	50, 50	–	–	LED: 9.54 V, 11 ns in water
408	K.Takenaka	2014/12/24 17:41	2	7	50, 50	–	–	LED: 9.56 V, 11 ns in water

409	K.Takenaka	2014/12/24 17:50	2	7	50, 50	–	–	LED: 9.58 V, 11 ns in water
410	K.Takenaka	2014/12/24 17:58	2	7	50, 50	–	–	LED: 9.60 V, 11 ns in water
411	K.Takenaka	2014/12/24 18:03	2	7	50, 50	–	–	LED: 9.62 V, 11 ns in water
412	K.Takenaka	2014/12/24 18:08	2	7	50, 50	–	–	LED: 9.64 V, 11 ns in water
413	K.Takenaka	2014/12/24 18:15	Pedestal	7	50, 50	–	–	Pedestal run
414	K.Takenaka		2	7	50, 50	–	–	LED: 9.64 V, 11 ns in water
415	K.Takenaka	2014/12/24 18:35	2	7	50, 50	–	–	LED: 9.63 V, 11 ns in water GOOD
416	K.Takenaka	2014/12/24 18:52	2	7	50, 50	–	–	LED: 3.50 V, 11 ns outside water
417	K.Takenaka	2014/12/24 18:55	2	7	50, 50	–	–	LED: 3.53 V, 11 ns outside water
418	K.Takenaka	2014/12/24 18:59	2	7	50, 50	–	–	LED: 3.56 V, 11 ns outside water GOOD
419			2	7	50, 50	–	–	Conditions are the same as run 418.
420	K.Takenaka	2014/12/27 21:30	2	7	50, 50	–	–	The window of acrylite#000 is replaced with S0. WC is laid horizontally. Window side : H11284,ZK6920=W-07 & BC-630,Saint-Gobain Bottom side : H6522,LA1537 & V-788,Adhensive HVs are applied at 20:24 on 2014/12/27 HV : scinti=-2600V, H11284=-2000V, H6522=-2600V LED: 4.17 V, 8 ns window side.
421	K.Takenaka	2014/12/27 21:35	2	7	50, 50	–	–	LED: 4.16 V, 8 ns window side
422			2	7	50, 50	–	–	Conditions are the same as run 421.
423			2	7	50, 50	–	–	Conditions are the same as run420.
424	K.Takenaka	2014/12/27 21:58	Pedestal	7	50, 50	–	–	Pedestal run
425			Pedestal	7	50, 50	–	–	Conditions are the same as run424.
426	K.Takenaka	2014/12/27 22:14	9	7	50, 50 WC: 28	0.28	10000	Window:S-0 Window side: H11284,ZK6920 & BC-630(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side RUN426 stopped 22:39, but no problem.
427			9	7	50, 50 WC: 28	0.28	10000	
428			9	7	50, 50 WC: 28	0.28	10000	
429			9	7	50, 50 WC: 28	0.28	10000	
430			9	7	50, 50 WC: 28	0.28	10000	

431			9	7	50, 50 WC: 28	0.28	10000	
432			9	7	50, 50 WC: 28	0.28	10000	
433			9	7	50, 50 WC: 28	0.28	10000	
434			9	7	50, 50 WC: 28	0.28	10000	
435			9	7	50, 50 WC: 28	0.28	10000	
436			9	7	50, 50 WC: 28	0.28	10000	
437			9	7	50, 50 WC: 28	0.28	10000	RUN437 was terminated at 6:10 on 2014/12/30.
438	K.Takenaka	2014/12/30 6:43	2	7	50, 50, 28	–	–	LED: 4.13 V, 8 ns window side
439	K.Takenaka	2014/12/30 6:49	2	7	50, 50, 28	–	–	LED: 4.14 V, 8 ns window side
440	K.Takenaka	2014/12/30 6:59	2	7	50, 50, 28	–	–	LED: 4.15 V, 8 ns window side GOOD for H11284
441			2	7	50, 50, 28	–	–	Conditions are the same as run440.
442	K.Takenaka	2014/12/30 7:11	2	7	50, 50, 28	–	–	LED: 4.16V, 8 ns window side GOOD for H6522
443	K.Takenaka	2014/12/30 7:19	2	7	50, 50, 28	–	–	LED: 4.17 V, 8 ns window side
444	K.Takenaka	2014/12/30 7:26	Pedest al	7	50, 50, 28	–	–	Pedestal run
445	K.Takenaka	2014/12/30 10:33	2	7	50, 50, 28	–	–	PMTs are ditached and attached. 45 min after HVs are applied. LED: 4.15 V, 8 ns window side GOOD
446	K.Takenaka	2014/12/30 10:37	Pedest al	7	50, 50, 28	–	–	Pedestal run
447	K.Takenaka	2014/12/30 10:49	9	7	50, 50, 28	0.2	20000	Conditions are the same as run426–run437. These runs are for a check of reproducibility.
448			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 447.
449			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 447.
450			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 447.
451			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 447.
452			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 447. RUN452 was terminated at 1:52 on 2015/1/2
453			9	7	50, 50, 28	0.2	20000	RUN453 restarted at 14:00 on 2015/1/5.
454			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 447.
455			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 447. RUN455 was terminated at 17:00 on 2014/1/6.
456	K.Takenaka	2015/1/6 18:30	2	7	50, 50, 28	–	–	After RUN455, clock generator was inserted. LED: 4.15 V, 8 ns window side GOOD for H11284
457	K.Takenaka	2015/1/6 18:42	2	7	50, 50, 28	–	–	LED: 4.16 V, 8 ns window side

458	K.Takenaka	2015/1/6 18:49	2	7	50, 50, 28	–	–	LED: 4.18 V, 8 ns window side GOOD for H6522.
459	K.Takenaka	2015/1/6 18:58	Pedestal	7	50, 50, 28	–	–	Pedestal run
460	K.Takenaka	2015/1/6 22:05	2	7	50, 50, 28	–	–	Setup Change: H11284 side grease:BC630-->BaF2 only HV was turned ON at 20:26 on 2015/1/6 LED: 4.15 V, 8 ns window side GOOD for H11284
461	K.Takenaka	2015/1/6 22:19	2	7	50, 50, 28	–	–	LED: 4.165 V, 8 ns window side GOOD for H6522
462	K.Takenaka	2015/1/6 22:30	Pedestal	7	50, 50, 28	–	–	Pedestal run
463	K.Takenaka	2015/1/6 22:48	9	7	50, 50, 28	0.2	20000	H11284 side grease:BC630-->BaF2 The other condition is the same as RUN447-RUN455. (Window=S0)
464			9	7	50, 50, 28	0.2	20000	Conditions are the same as run463.
465			9	7	50, 50, 28	0.2	20000	Conditions are the same as run463.
466			9	7	50, 50, 28	0.2	20000	Conditions are the same as run463.
467	K.Takenaka	2015/1/8 16:54	2	7	50, 50, 28	–	–	LED: 4.15 V, 8 ns window side GOOD for H11284
468	K.Takenaka	2015/1/8 17:03	2	7	50, 50, 28	–	–	LED: 4.165 V, 8 ns window side GOOD for H6522
469	K.Takenaka	2015/1/8 17:12	Pedestal	7	50, 50, 28	–	–	Pedestal run
470	K.Takenaka	2015/1/8 20:25	2	7	50, 50, 28	–	–	Setup Change: It is turned out that y has been 30cm since window test started. Position y is set from 30 to 35 cm. The other conditions are the same as RUN463-466. in an hour and half after HV was applied… LED: 4.63 V, 8 ns window side GOOD for H11284
471	K.Takenaka	2015/1/8 20:32	2	7	50, 50, 28			LED: 4.68 V, 8 ns window side GOOD for H6522
472	K.Takenaka	2015/1/8 20:39	Pedestal	7	50, 50, 28			Pedestal run
473	K.Takenaka	2015/1/8 20:52	9	7	50, 50, 28	0.2	20000	Window: S-0 Window side: H11284,ZK6920 & BaF2(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
474			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 473.
475			9	7	50, 50, 28	0.2	20000	Conditions are the same as run 473.
476	K.Takenaka	2015/1/9 19:26	2	7	50, 50, 28	–	–	LED: 4.64 V, 8 ns window side GOOD for H11284

477	K.Takenaka	2015/1/9 19:37	2	7	50, 50, 28	–	–	LED: 4.69 V, 8 ns GOOD for H6522
478	K.Takenaka	2015/1/9 19:50	Pedestal	7	50, 50, 28	–	–	Pedestal run
479	K.Takenaka	2015/1/9 21:49	2	7	50, 50, 28	–	–	Setup changes: Repeatability check. Only PMT H11284 wad detatched and atatched. Conditions are the same as RUN473-475. in an hour after HV was applied. LED: 4.43 V, 8 ns window side GOOD for H11284
480	K.Takenaka	2015/1/9 21:30	2	7	50, 50, 28			LED: 4.47 V, 8 ns window side GOOD for H6522
481	K.Takenaka	2015/1/9 21:39	Pedestal	7	50, 50, 28			Pedestal run
482	K.Takenaka	2015/1/9 22:00	9	7	50, 50, 28	0.2	20000	Window: S-0 Window side: H11284,ZK6920 & BaF2(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
483			9	7	50, 50, 28	0.2	20000	RUN483 was terminated at 17:42 on 2015/1/10.
484	K.Takenaka	2015/1/10 17:52	2	7	50, 50, 28	–	–	LED: 4.43 V, 8 ns window side GOOD for H11284
485	K.Takenaka	2015/1/10 18:04	2	7	50, 50, 28	–	–	LED: 4.47 V, 8 ns window side GOOD for H6522
486	K.Takenaka	2015/1/10 18:07	Pedestal	7	50, 50, 28	–	–	Pedestal run
487	K.Takenaka	2015/1/10 20:16	2	7	50, 50, 28	–	–	Setup changes: Check of PMT's individual difference. H11284: ZK6920(WC-07)-->ZK6900(WC-02) LED: 4.16 V, 8 ns, window side GOOD for H11284
488	K.Takenaka	2015/1/10 19:58	2	7	50, 50, 28	–	–	LED: 4.20 V, 8 ns, window side GOOD for H6522
489	K.Takenaka	2015/1/10 20:04	2	7	50, 50, 28	–	–	LED: 4.21 V, 8 ns window side GOOD for H6522 (oome)
490	K.Takenaka	2015/1/10 20:10	Pedestal	7	50, 50, 28	–	–	Pedestal run
491	K.Takenaka	2015/1/10 20:23	9	7	50, 50, 28	0.2	20000	Window: S-0 Window side: H11284,ZK6900(WC-02) & BaF2(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
492					50, 50, 28	0.2	20000	RUN492 was terminated at 16:51 on 2015/1/1/11.
493	K.Takenaka	2015/1/11 17:01	2	7	50, 50, 28	–	–	LED: 4.16 V, 8 ns window side GOOD for H11284
494	K.Takenaka	2015/1/11 17:10	2	7	50, 50, 28	–	–	LED: 4.20 V, 8 ns, window side GOOD for H6522
495	K.Takenaka	2015/1/11 17:16	Pedestal	7	50, 50, 28	–	–	Pedestal run

496	K.Takenaka	2015/1/11 19:11	2	7	50, 50, 28	–	–	Setup changes: Check of PMT's individual difference. H11284: ZK6900(WC-02)-->ZK6917(WC-04) in an hour after HV was applied… LED: 4.13V, 8ns, window side best for H11284
497	K.Takenaka	2015/1/11 19:00	2	7	50, 50, 28	–	–	LED: 4.18 V, 8 ns window side GOOD for H6522
498	K.Takenaka	2015/1/11 19:06	Pedestal	7	50, 50, 28	–	–	Pedestal run
499	K.Takenaka	2015/1/11 19:19	9	7	50, 50, 28	0.2	20000	Window: S-0 Window side: H11284,ZK6917(WC-04) & BaF2(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
500			9	7	50, 50, 28	0.2	20000	RUN500 was terminated at 15:59 on 2015/1/1/12.
501	K.Takenaka	2015/1/12 16:07	2	7	50, 50, 28	–	–	LED: 4.13 V, 8 ns window side GOOD for H11284
502	K.Takenaka	2015/1/12 16:17	2	7	50, 50, 28	–	–	LED: 4.13 V, 8 ns window side GOOD for H11284
503	K.Takenaka	2015/1/12 16:24	2	7	50, 50, 28	–	–	LED: 4.18 V, 8 ns, window side GOOD for H6522
504	K.Takenaka	2015/1/12 16:30	Pedestal	7	50, 50, 28	–	–	Pedestal run
505	K.Takenaka	2015/1/12 18:27	2	7	50, 50, 28	–	–	Setup changes: Check of grease dependence of NPE grease: BaF2-->BC-630 H11284: ZK6917(WC-04)->ZK6920(WC-07) in an hour after HV was applied… LED: 4.14 V, 8 ns, window side GOOD for H11284
506	K.Takenaka	2015/1/12 18:12	2	7	50, 50, 28	–	–	LED: 4.18 V, 8 ns, window side GOOD for H6522
507	K.Takenaka	2015/1/12 18:17	Pedestal	7	50, 50, 28	–	–	Pedestal run
508	K.Takenaka	2015/1/12 18:33	9	7	50, 50, 28	0.2	20000	Window: S-0 Window side: H11284,ZK6920(WC-07) & BC-630(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
509			9	7	50, 50, 28	0.2	20000	RUN509 was terminated at 13:51 on 2015/1/1/13.
510	K.Takenaka	2015/1/13 14:17	2	7	50, 50, 28	–	–	LED: 4.14 V, 8 ns window side GOOD for H11284
511	K.Takenaka	2015/1/13 14:07	Pedestal	7	50, 50, 28	–	–	Pedestal run
512	K.Takenaka	2015/1/13 14:25	2	7	50, 50, 28	–	–	LED: 4.18 V, 8 ns window side GOOD for H6522

513	K.Takenaka	2015/1/14 14:48	2	7	50, 50, 28	–	–	Setup changes: Window test window: S0-->UV00 grease: BC630-->BaF2 H6522 is newly detached and attached. In an our after HV was applied… LED: 5.00 V, 8 ns window side GOOD for H11284
514	K.Takenaka	2015/1/14 14:32	2	7	50, 50, 28	–	–	LED: 5.05 V, 8 ns bottom side GOOD for H6522
515	K.Takenaka	2015/1/14 14:37	Pedestal	7	50, 50, 28	–	–	Pedestal run
516	K.Takenaka	2015/1/14 14:54	9	7	50, 50, 28	0.2	20000	Window: UV00 Window side: H11284,ZK6920(WC-07) & BaF2(grease) Bottom side: H6522,LA1537 & V788<-- newly detached & attached TOF1=up, TOF2=down, WC1=window side, WC2=bottom side RUN516 stopped at 21:34 on 2015/1/1/14 because of kernel panic. (It was turned out that LED light had been switched on.)
517					50, 50, 28			RUN517 started at 21:58 (It was turned out that LED light had been switched on.)
518					50, 50, 28			RUN518 was terminated at 12:56 on 2015/1/1/15. (It was turned out that LED light had been switched on.)
519	K.Takenaka	2015/1/15 13:04	2	7	50, 50, 28	–	–	LED: 5.00 V, 8 ns bottom side GOOD for H11284
520	K.Takenaka	2015/1/15 13:14	2	7	50, 50, 28	–	–	LED: 5.05 V, 8 ns bottom side GOOD for H6522
521	K.Takenaka	2015/1/15 13:28	Pedestal	7	50, 50, 28	–	–	Pedestal run
522	K.Takenaka	2015/1/15 13:32	9	7	50, 50, 28	0.2	20000	Window: UV00 Window side: H11284,ZK6920(WC-07) & BaF2(grease) Bottom side: H6522,LA1537 & V788<-- newly detached & attached TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
523			9	7	50, 50, 28	0.2	20000	
524			9	7	50, 50, 28	0.2	20000	RUN524 was terminated at 13:00 on 2015/1/16.
525	K.Takenaka	2015/1/16 13:11	2	7	50, 50, 28	–	–	LED: 5.00 V, 8 ns bottom side GOOD for H11284
526	K.Takenaka	2015/1/16 13:16	2	7	50, 50, 28	–	–	LED: 5.05 V, 8 ns bottom side GOOD for H6522
527	K.Takenaka	2015/1/16 13:22	Pedestal	7	50, 50, 28	–	–	Pedestal run

528	K.Takenaka	2015/1/16 15:37	2	7	50, 50, 28	–	–	Setup changes: Repeatability check H11284 is detached and attached only. Other conditions are the same as the just previous run. In an hour after HV was applied… LED: 4.97 V, 8 ns bottom side GOOD for H11284
529	K.Takenaka	2015/1/16 15:26	2	7	50, 50, 28	–	–	LED: 5.04 V, 8 ns bottom side GOOD for H6522
530	K.Takenaka	2015/1/16 15:31	Pedestal	7	50, 50, 28	–	–	Pedestal run
531	K.Takenaka	2015/1/16 15:55	9	7	50, 50, 28	0.2	20000	Window: UV00 Window side: H11284,ZK6920(WC-07) & BaF2(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
532			9	7	50, 50, 28	0.2	20000	
533			9	7	50, 50, 28	0.2	20000	RUN533 was terminated at 14:27 on 2015/1/17.
534	K.Takenaka	2015/1/17 14:36	2	7	50, 50, 28	–	–	LED: 4.97 V, 8 ns bottom side GOOD for H11284
535	K.Takenaka	2015/1/17 14:40	2	7	50, 50, 28	–	–	LED: 5.04 V, 8 ns bottom side GOOD for H6522
536	K.Takenaka	2015/1/17 14:46	Pedestal	7	50, 50, 28	–	–	Pedestal run
537	K.Takenaka	2015/1/17 20:10	2	7	50, 50, 28	–	–	Setup changes: window: UV00--> >acrylite#000 H6522 is also newly detached and attached. In an hour after HV was applied… LED: 4.99 V, 8 ns bottom side GOOD for H11284
538	K.Takenaka	2015/1/17 19:54	2	7	50, 50, 28	–	–	LED: 5.04 V, 8 ns bottom side GOOD for H6522
539	K.Takenaka	2015/1/17 20:01	Pedesta	7	50, 50, 28	–	–	Pedestal run
540	K.Takenaka	2015/1/17 20:16	9	7	50, 50, 28	0.2	20000	Window: acrylite#000 Window side: H11284,ZK6920(WC-07) & BaF2(grease) Bottom side: H6522,LA1537 & V788<-- newly detached & attached TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
541			9	7	50, 50, 28	0.2	20000	
542			9	7	50, 50, 28	0.2	20000	RUN542 was terminated at 19:07 on 2015/1/18.
543	K.Takenaka	2015/1/18 19:22	2	7	50, 50, 28	–	–	LED: 4.99 V, 8 ns bottom side GOOD for H11284
544	K.Takenaka	2015/1/18 19:27	2	7	50, 50, 28	–	–	LED: 5.04 V, 8 ns bottom side GOOD for H6522
545	K.Takenaka	2015/1/18 19:35	Pedestal	7	50, 50, 28	–	–	Pedestal run

546	K.Takenaka	2015/1/18 21:29	2	7	50, 50, 28	–	–	Setup changes: Repeatability check H11284 is detached and attached only. Other conditions are the same as the just previous run. In an hour after HV was applied… LED: 4.99 V, 8 ns bottom side GOOD for H11284
547	K.Takenaka	2015/1/18 21:13	2	7	50, 50, 28	–	–	LED: 5.04 V, 8 ns bottom side GOOD for H6522
548	K.Takenaka	2015/1/18 21:20	Pedest al	7	50, 50, 28	–	–	Pedestal run
549	K.Takenaka	2015/1/18 21:39	9	7	50, 50, 28	0.2	20000	Window: acrylite#000 Window side: H11284,ZK6920(WC-07) & BaF2(grease) Bottom side: H6522,LA1537 & V788 TOF1=up, TOF2=down, WC1=window side, WC2=bottom side
550			9	7	50, 50, 28	0.2	20000	
551			9	7	50, 50, 28	0.2	20000	RUN551 was terminated at 21:26 on 2015/1/19.
552	K.Takenaka	2015/1/19 21:35	2	7	50, 50, 28	–	–	LED: 4.99 V, 8 ns bottom side GOOD for H11284
553	K.Takenaka	2015/1/19 21:40	2	7	50, 50, 28	–	–	LED: 5.04 V, 8 ns bottom side GOOD for H6522
554	K.Takenaka	2015/1/19 21:45	Pedesta	7	50, 50, 28	–	–	Pedestal run
555	K.Takenaka	2015/1/19 21:50	9	7	50, 50, 28	0.2	20000	Conditions are the same as run 551.
556								
557								
558								
559								
560								
561								

Trigger conditions

Trigger ID	Conditions	Remarks
1	CH1&CH2&CH3&CH4	1': ADC gate was delayed.
2	WC LED	
3	WC1 & WC2 & WC3	
4	WC1	
5	WC2	
6	WC3	
7	CH1&CH2	with ^{90}Sr source
8	WC1 & WC3	

Experimental setup was changed !!!! (Setup 2)

9	TOF1 & TOF2	
10	TOF1	
11	TOF2	

HV setting

HV setting	Channel	PMT ID	HV [V]	Remarks
1	1-1	WA6623	2850	TOF
	1-2	WA6624	2692	TOF
	1-3	WA6613	2810	TOF
	1-4	WA6601	2642	TOF
	2-1		2300	Small scitillator
	2-2		2000	WC
	2-3		2600	WC
	2-4		2600	WC
2	1-1	WA6623	2850	TOF
	1-2	WA6624	2692	TOF
	1-3	WA6613	2810	TOF
	1-4	WA6601	2642	TOF
	2-1		2300	Small scitillator
	2-2		1900	WC
	2-3		2650	WC
	2-4		2650	WC
3	1-1	WA6623	2850	TOF
	1-2	WA6624	2692	TOF
	1-3	WA6613	2810	TOF
	1-4	WA6601	2642	TOF
	2-1		2300	Small scitillator
	2-2		1700	WC
	2-3		2550	WC
	2-4		2550	WC

Setup2

4	1		2000	TOF1
	2		2000	TOF2
5	1		2300	TOF1
	2		2300	TOF2
6	1		2500	TOF1
	2		2500	TOF2
7	1		2400	TOF1
	2		2400	TOF2
	3		2000	WC (H11284)
	4		2600	WC (H6522)