KEKB Shift Report Date : 2007/11/29(Th)

Evening Shift : Nakanishi,Ikeda(K); Asai,Kawasumi(M); Higuchi(B)

Physics run was started again smoothly.

Plan

1. Optics correction
2. Collision tuning (iBump,waist,simplex)

Peak $\mathcal{L}$ / G-Ratio : 11.391 $\times 10^{33}$ $cm^{-2}s^{-1}$ / 77.5 %

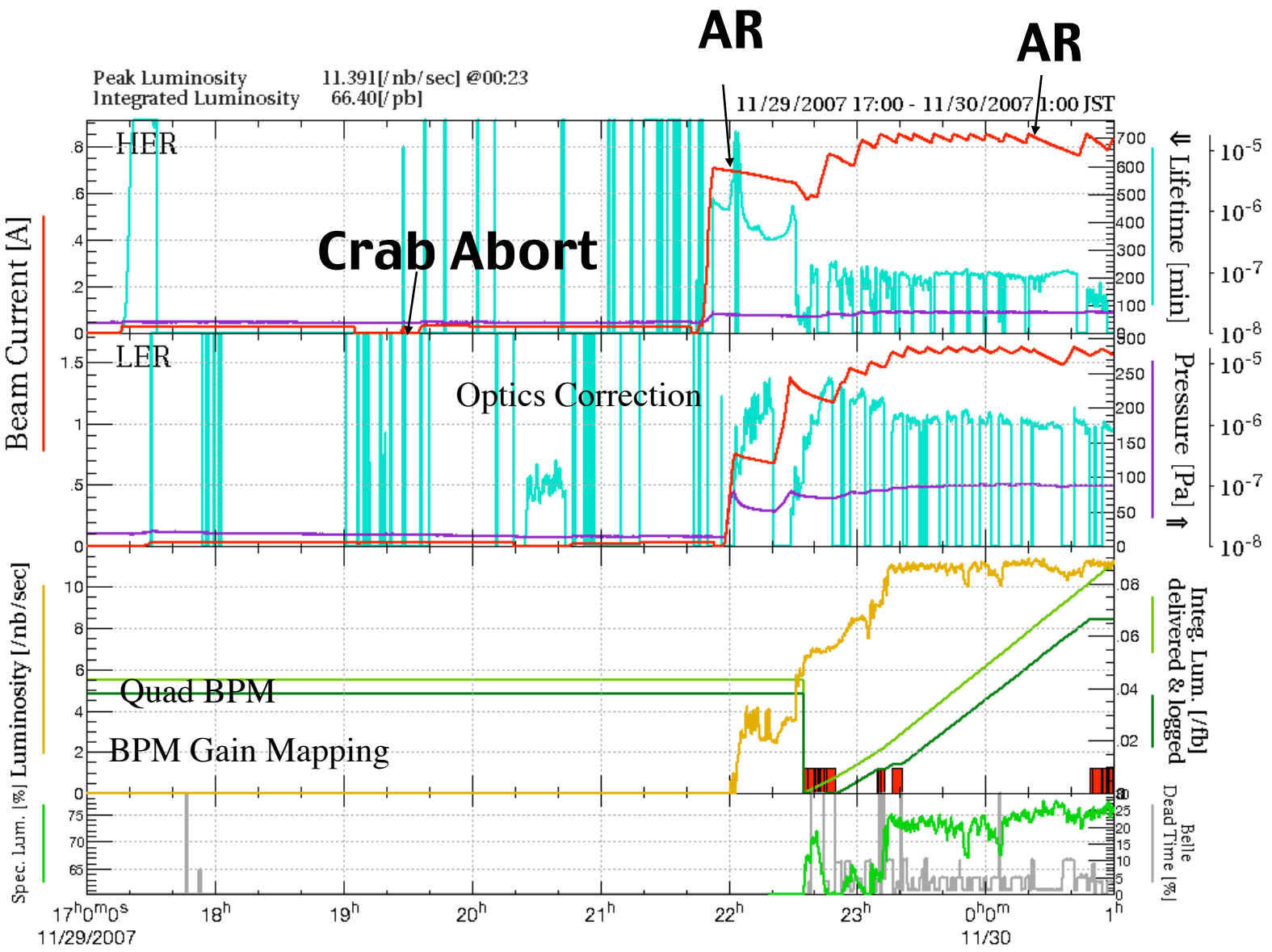
Shift $\mathcal{L}$ / Day $\mathcal{L}$: 66.4 pb^{-1} (w/o ECL)/336.4 pb^{-1}

Beam Current : LER 1620 mA / HER 850 mA

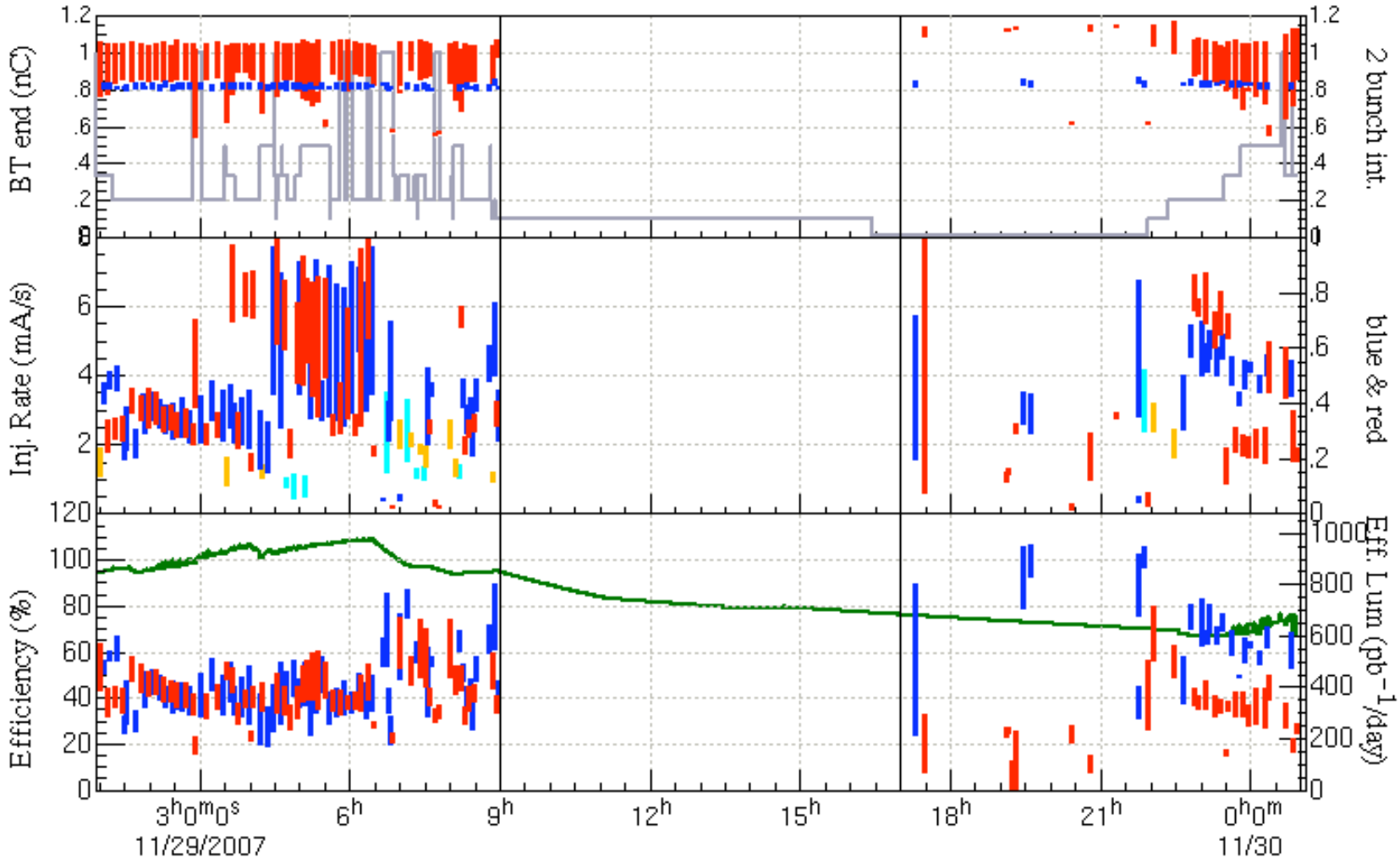
Fill pattern : spacing, trains, 1584+1 bunches

Aborts : LER_{only} : 0 / HER_{only} : 1 / Both : 0

Shift Summary

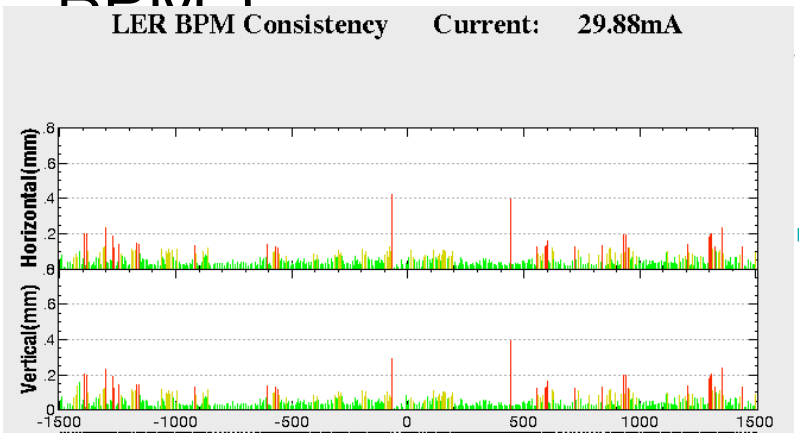


Injection Summary

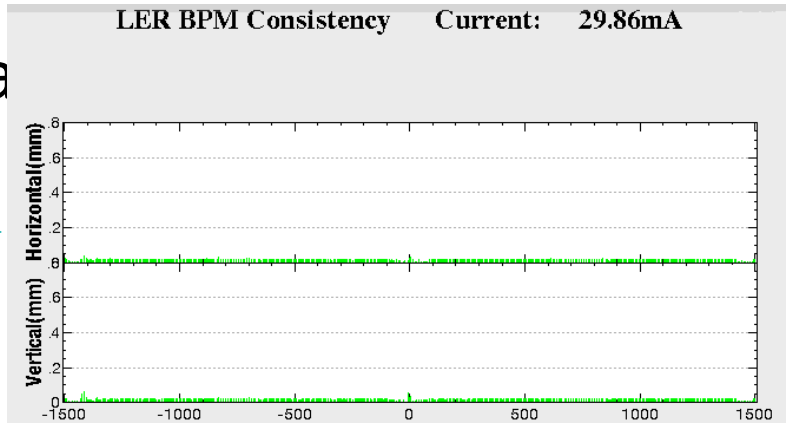


Tuning Items

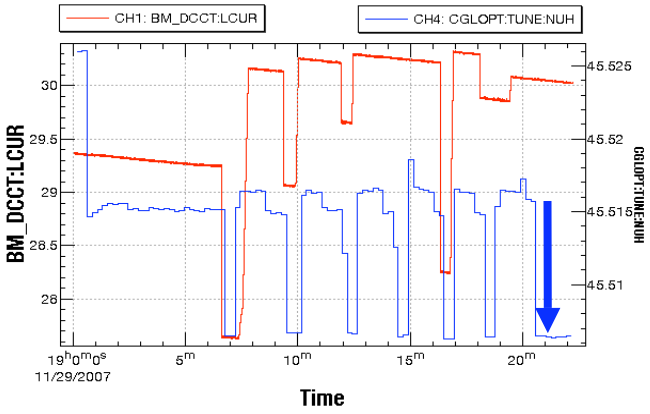
- BPM gain mapping (Masuzawa,Tejima)
- Beam based alignment (called "quad BPM")



ma



- Set SX-mag current (chosen us
method)
- Measure the X-Y coupling,



Knob 1

LER

Room Phase
-18.53 -> -18.53

Δf_{RF}
-2.63 -> -2.63

Waist
.1 -> .1

ηy
.46 -> .31

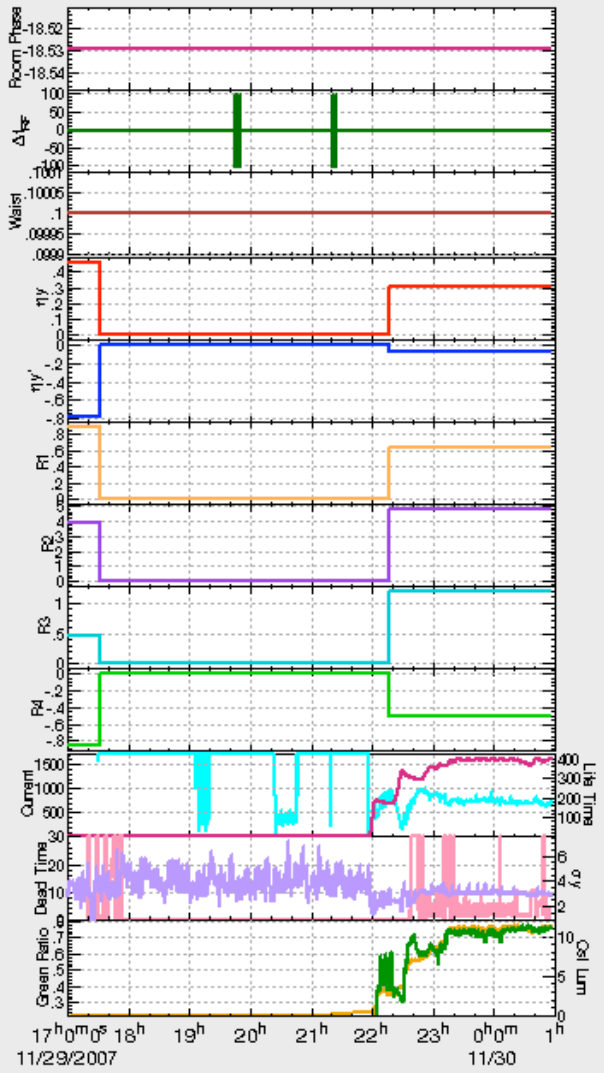
ηy'
-.78 -> -.07

R1
.89 -> .63

R2
3.94 -> 4.79

R3
.45 -> 1.19

R4
-.86 -> -.5



HER

Voffset
0 -> -1.74

Vangle
0 -> -.56

Waist
.85 -> .85

ηy
.12 -> .34

ηy'
.51 -> .55

R1
5.62 -> 3.73

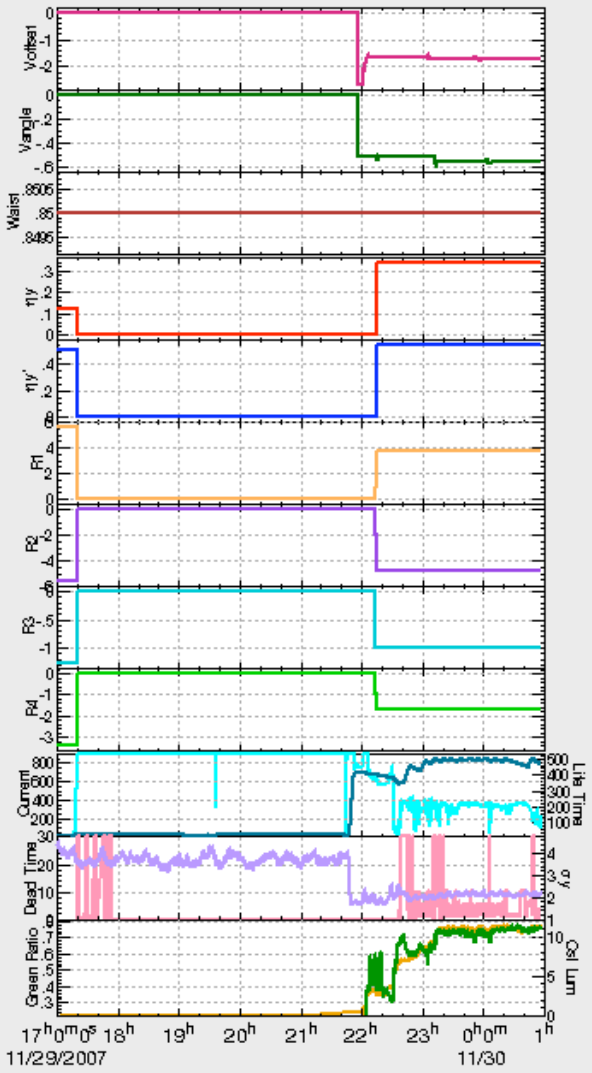
R2
-5.61 -> -4.83

R3
-1.28 -> -1

R4
-3.41 -> -1.68

Lum_{Max}:11.391

GR_{Max}:77.5 %



Knob 2

LER

LER Size@Inj

0 -> 0@0A

νx @0A

0 -> 0

νy @0A

.5774 -> .5774

ξ_x

-.474 -> -.684

ξ_y

4.24 -> 4.243

$d_\delta\alpha^+_x$

14.05 -> 15.76

$d_\delta\alpha^+_y$

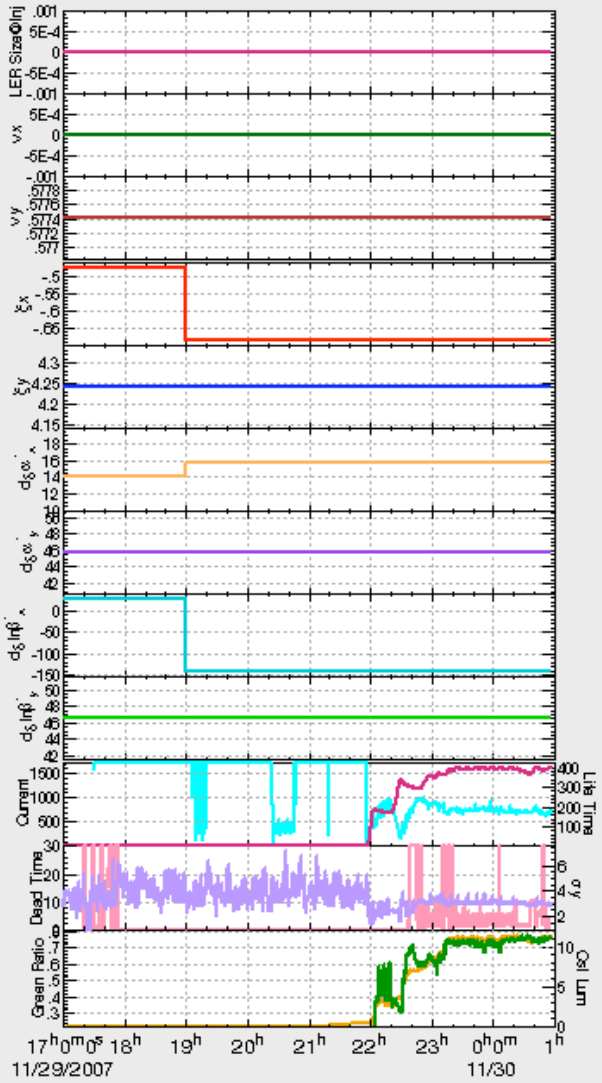
45.73 -> 45.75

$d_\delta\ln\beta^+_x$

27.55 -> -142.84

$d_\delta\ln\beta^+_y$

46.55 -> 46.56



HER

LER Size@Col

0 -> 0@0A

νx @0A

0 -> .5122

νy @0A

.592 -> .592

ξ_x

-1.208 -> -1.208

ξ_y

.88 -> .88

$d_\delta\alpha^+_x$

-1 -> -1

$d_\delta\alpha^+_y$

-40.49 -> -40.49

$d_\delta\ln\beta^+_x$

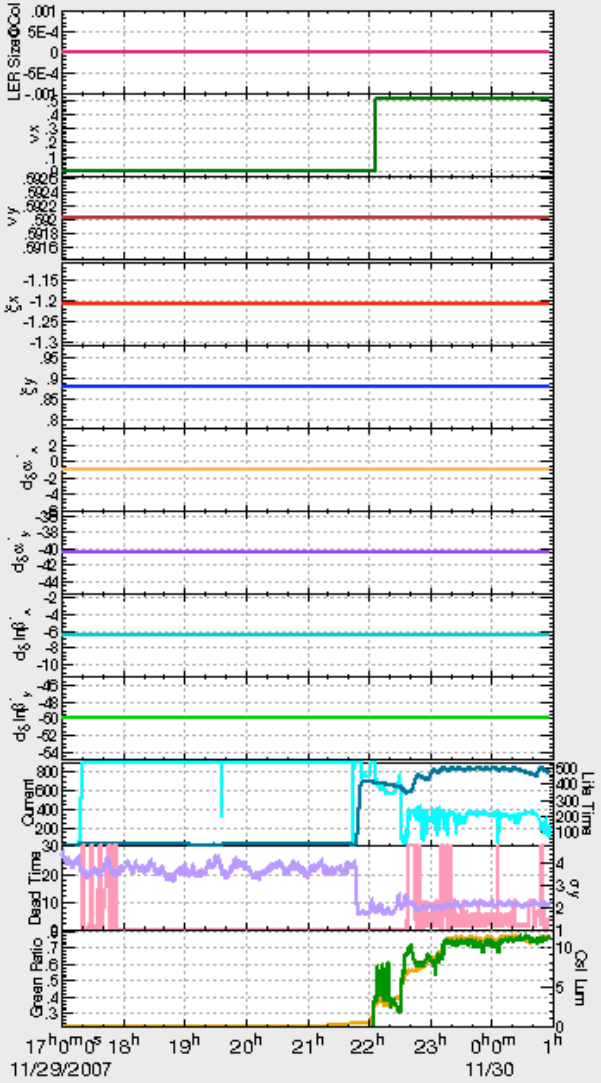
-6.55 -> -6.55

$d_\delta\ln\beta^+_y$

-49.97 -> -49.97

Lum_{Max}:11.391

GR_{Max}:77.5 %



Knob 3

LER

Hoffset

.698 -> .715

R2(Crab)

0 -> 0

R4(Crab)

0 -> 0

ηy(SX)

0 -> -2.2E-5

ηy'(SX)

0 -> 2.73E-4

R1(SX)

0 -> -1.1E-5

R2(SX)

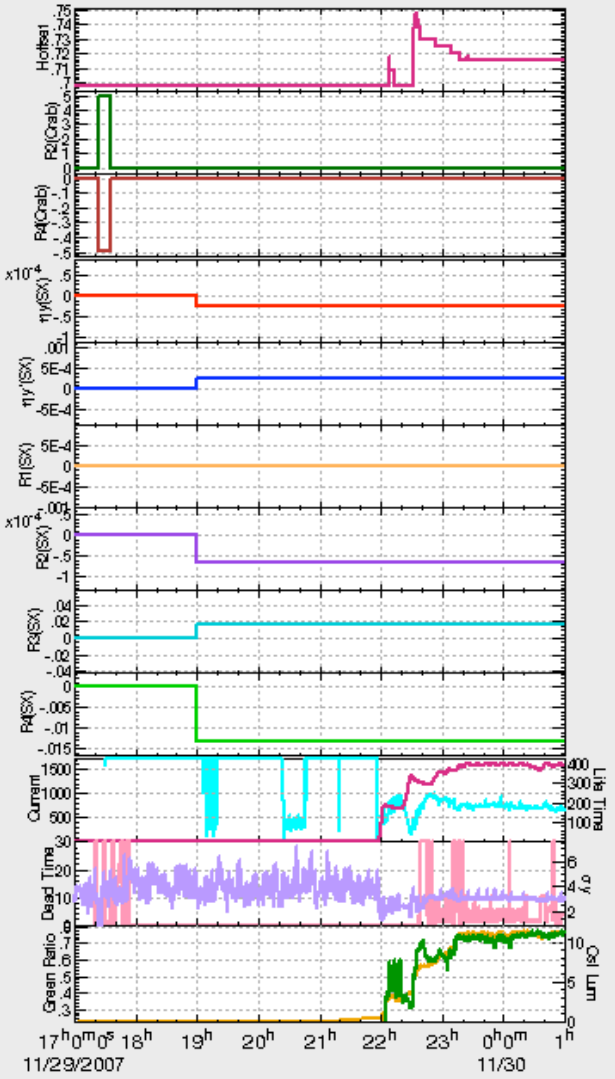
0 -> -6.6E-5

R3(SX)

0 -> .016

R4(SX)

0 -> -.013



HER

Hangle

0 -> 0

R2(Crab)

0 -> 0

R4(Crab)

0 -> 0

ηy(SX)

0 -> 0

ηy'(SX)

0 -> 0

R1(SX)

0 -> 0

R2(SX)

0 -> 0

R3(SX)

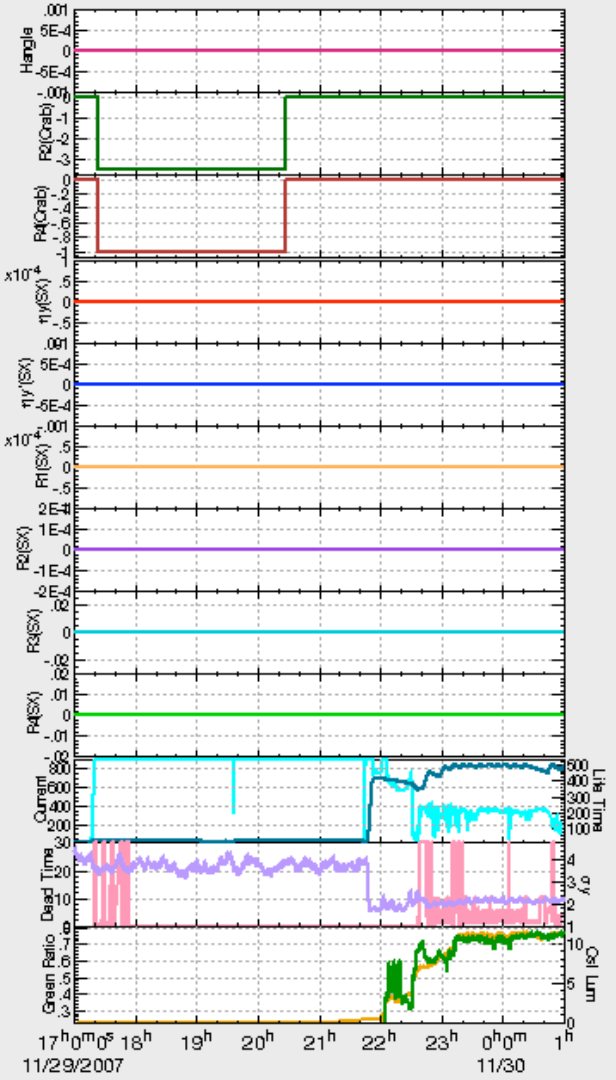
0 -> 0

R4(SX)

0 -> 0

Lum_{Max}:11.391

GR_{Max}:77.5%



Comments

1. D7A V_cavity monitor cable was disconnected. It was fixed. (Akai 17:45)
2. AR inj. (22:00, 00:20)

Troubles

1. 19:05 HER abort (Crab break down)
2. Belle DAQ (ECL) trouble. Vertex position data was not available.

終わり

KEKB Shift Report Date : 2007/11/30(Fri)

Morning Shift : Yokoyama(K); Aoyama, Shimodoumae(M); Tajima(B)

Frequent HER Aborts & Low life time

Plan

1. Collision tuning (waist, simplex, tune, IP knob, ...)

Peak $\mathcal{L}$ / G-Ratio : 12.223 $\times 10^{33}$ cm^{-2}s^{-1} / 75 %

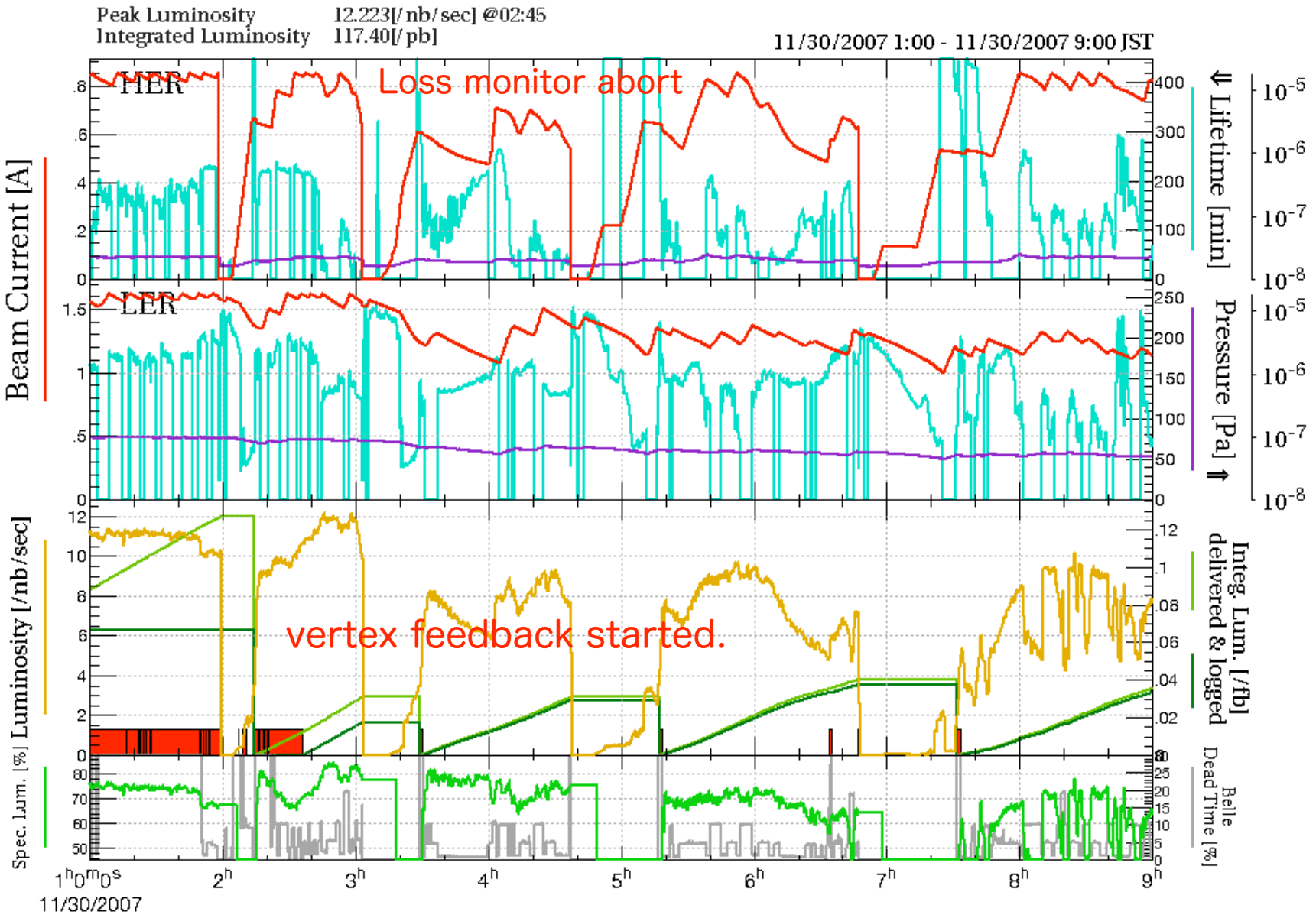
Shift $\mathcal{L}$ / Day $\mathcal{L}$: 66.4 pb^{-1} (w/o ECL)/ *** pb^{-1}

Beam Current : LER 1620 mA / HER 850 mA

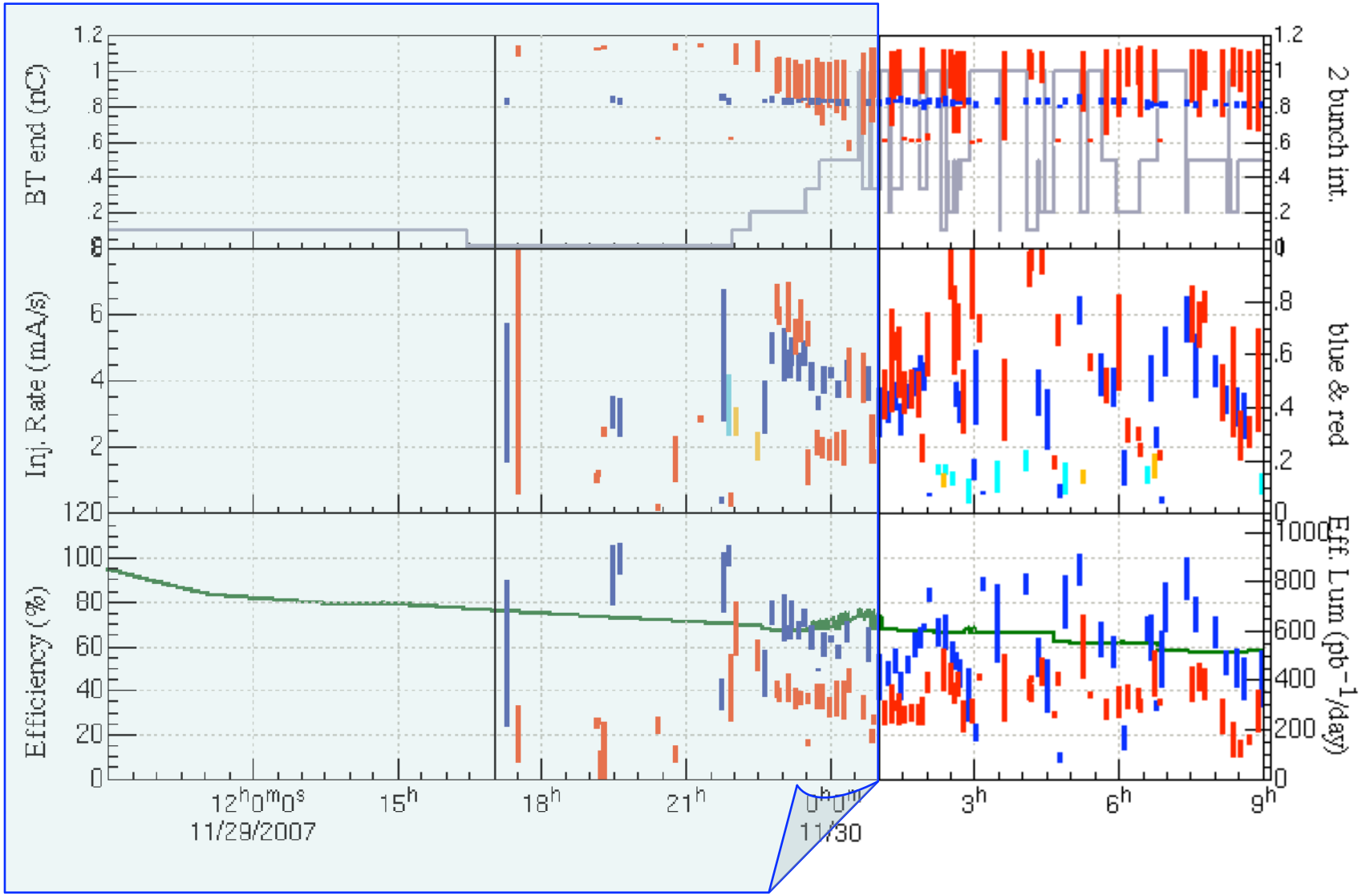
Fill pattern : spacing, trains, 1584+1 bunches

Aborts : $\mathrm{LER}_{\mathrm{only}}$: 0 / $\mathrm{HER}_{\mathrm{only}}$: 4 / Both : 0

Shift Summary



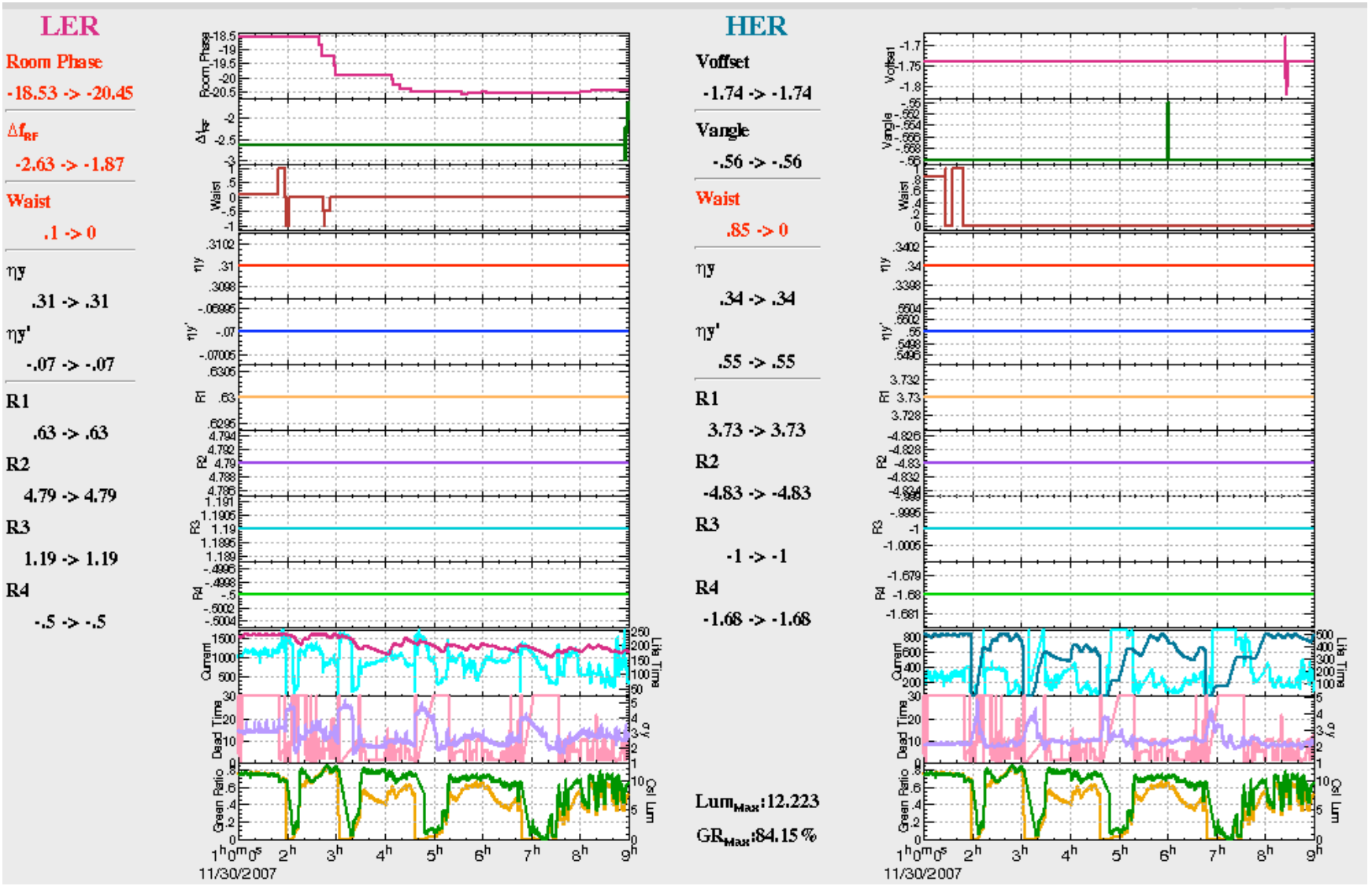
Injection Summary



Tuning Items

- waist

Knob 1


LER
Room Phase
-18.53 -> -20.45
Δf_RF
-2.63 -> -1.87
Waist
.1 -> 0
ηy
.31 -> .31
ηy'
-.07 -> -.07
R1
.63 -> .63
R2
4.79 -> 4.79
R3
1.19 -> 1.19
R4
-.5 -> -.5
HER
Voffset
-1.74 -> -1.74
Vangle
-.56 -> -.56
Waist
.85 -> 0
ηy
.34 -> .34
ηy'
.55 -> .55
R1
3.73 -> 3.73
R2
-4.83 -> -4.83
R3
-1 -> -1
R4
-1.68 -> -1.68
Lum_Max:12.223
GR_Max:84.15%
11/30/2007
11/30/2007

Knob 2

LER

LER Size@Inj

0 -> 0@0A

νx @0A

0 -> 0

νy @0A

.5774 -> .5774

ξx

-.684 -> -.684

ξy

4.243 -> 4.243

$d_\delta\alpha^*_x$

15.76 -> 15.76

$d_\delta\alpha^*_y$

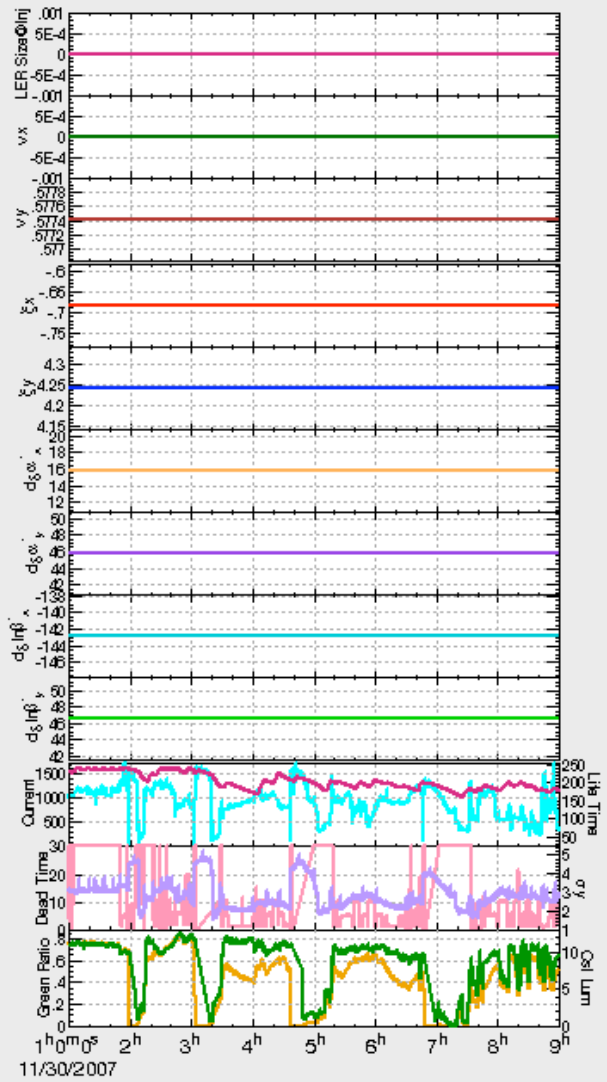
45.75 -> 45.75

$d_\delta\ln\beta^*_x$

-142.84 -> -142.84

$d_\delta\ln\beta^*_y$

46.56 -> 46.56



HER

HER Size@Col

0 -> 0@0A

νx @0A

.5122 -> .5122

νy @0A

.592 -> .592

ξx

-1.208 -> -1.208

ξy

.88 -> .88

$d_\delta\alpha^*_x$

-1 -> -1

$d_\delta\alpha^*_y$

-40.49 -> -40.49

$d_\delta\ln\beta^*_x$

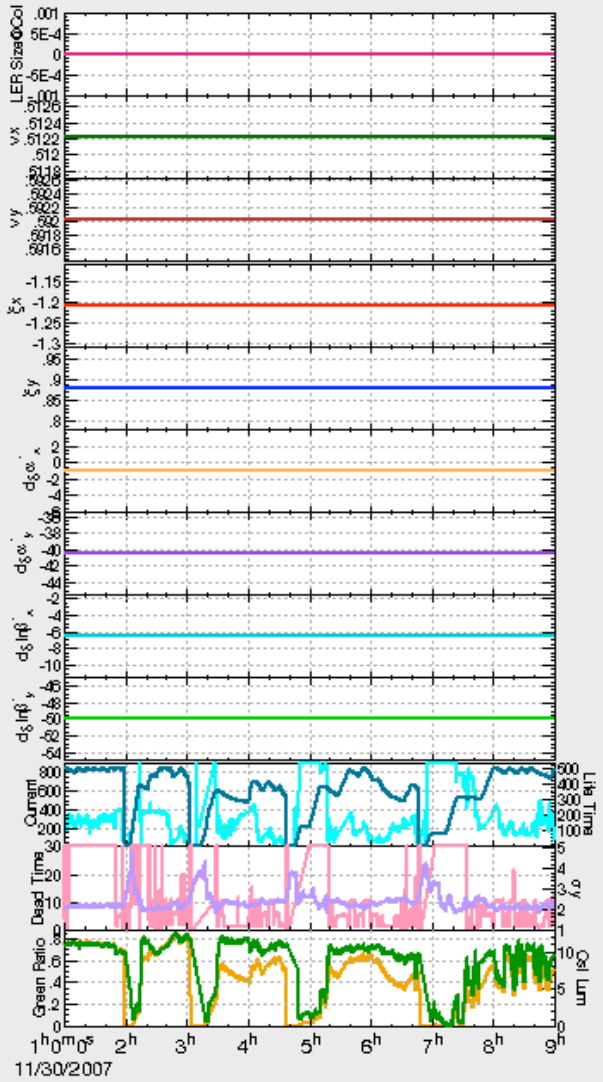
-6.55 -> -6.55

$d_\delta\ln\beta^*_y$

-49.97 -> -49.97

Lum_{Max}:12.223

GR_{Max}:84.15%



Knob 3

LER

Hoffset

.715 -> .714

R2(Crab)

0 -> 0

R4(Crab)

0 -> 0

ηy(SX)

-2.2E-5 -> -2.2E-5

ηy'(SX)

2.73E-4 -> 2.73E-4

R1(SX)

-1.1E-5 -> -1.1E-5

R2(SX)

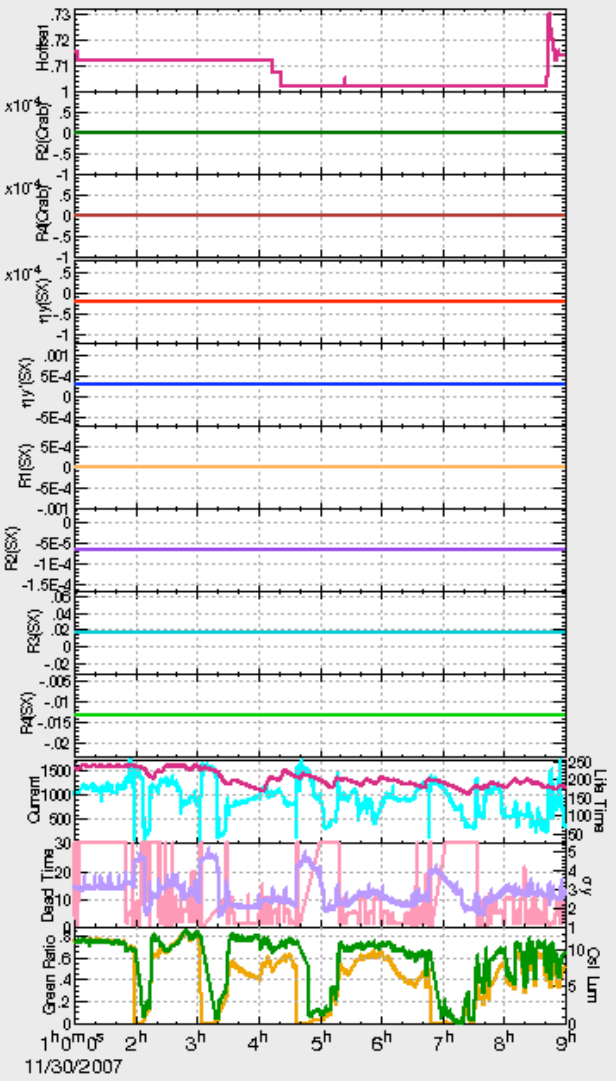
-6.6E-5 -> -6.6E-5

R3(SX)

.016 -> .016

R4(SX)

-.013 -> -.013



HER

Hangle

0 -> 0

R2(Crab)

0 -> 0

R4(Crab)

0 -> 0

ηy(SX)

0 -> 0

ηy'(SX)

0 -> 0

R1(SX)

0 -> 0

R2(SX)

0 -> 0

R3(SX)

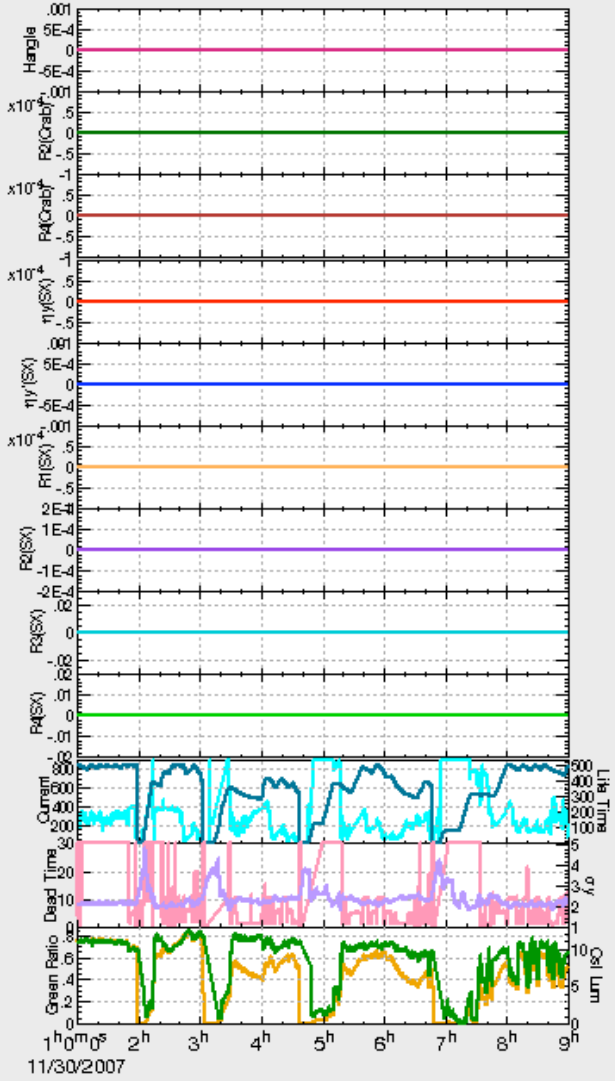
0 -> 0

R4(SX)

0 -> 0

Lum_{Max}:12.223

GR_{Max}:84.15%



Comments

1. Belle Calorimeter trouble (status error of electronics, "Fast-Bus") has been still remained
   - They have not found the reason, yet.
   - Anyway, they don't know this is "real" problem or not

   → to be checked with data

2. 2:40 Vertex position information was resumed.
   - Belle data taking is necessary for vertex

Troubles

1. 1:58 HER Beam Abort (Loss Monitor D10-1)
2. 3:00 HER injection rate & life time were too low (-> down to 5 min) after LER injection.

   Then (3:03), HER abort was happened (Loss Monitor D10-1)

   -> Set previous knob parameters and tried to find appropriate tune value and masks, but it couldn't be found. And then HER abort (4:37) was happened again.

   The reason is unknown, vertex feedback? After it started, life became low.

3. 3:37 YEL505 (radiation monitor) was alarmed.

Beam Injection was inhibited for 20 min.

All beam request off. No beam request for KEKB.

4. 6:58 YEL505 (radiation monitor) was alarmed.

終わり