# Run coordination meeting.

G. Vashchenko 30.07.2015





### Plan for weeks 30 and 31



ts			to do:	Measurements / Shutdown							
Fri	Sat	Sun	Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun	
Jul-24	Jul-25	Jul-26	31	Jul-27	Jul-28	Jul-29	Jul-30	Jul-31	Aug-01	Aug-02	
			Morn.			1					
Gross	Gross	Gross	7:00	Rublack	Rublack	Rublack					
Gavrilov	Gavrilov	Gavrilov	to	Melkumyan	Melkumyan	Melkumyan					
			15:30								
			Late								
Renier	Renier	Renier	15:00	Asova	Asova	Asova					
Lishilin	Lishilin	Lishilin	to	Vasilyev	Vasilyev	Vasilyev					
			23:30								
			Night								
Good	Good	Good	23:00	Boonpornpras	Boompornpras	Boonpornpras					
Kalantaryan	Kalantaryan	Kalantaryan	to	Rybakov	Rybakov	Rybakov					
			7:30			/\					
			Resp. Phys			/\					
Gross	Gross	Gross	Laser	Rublack	Rublack	Rublack					
Wenndorff	Wenndorff	Wenndorff	RF	Jachmann	Jachmann	Jachmann					
Donat	Donat	Donat	Vaku.	Philipp	Philipp	Philipp					
Schoeneich	Schoeneich	Schoeneich	Contr.	Melkumyan	Melkumyan	Melkumyan					
Schade	Schade	Schade	Electr.	Schultze	Schultze	Schultze					
Schulze	Schulze	Schulze	Infrast.	Hoffmann	Hoffmann	Hoffmann					
Gross	Gross	Gross	SSB	Rublack	Rublack	Rublack					
Boonpornpras	Krasilnikov	Krasilnikov	Schichtabsich	Vashchenko	Vashchenko	Gross					
status has changed	status has changed since the last version			Issued on 23-Jul-2015			A gray field means the status has changed since the last version				

- Plasma cell studies
- 3D laser studies
- Extract plasma cell from the beamline
- Gun stability measurements with different WCS sensors



#### **Problems**



- No beam after plasma chamber can be observed since 25.07.15 ~07:00. Reason is not clear. Plasma cell needs to be dismounted and studied.
- Often WCS server malfunctioning leads to gun IL. Has to be solved by Joerg/Bagrat.
- Bucking magnet problem solved by EPICS card exchange



#### **Achievements**

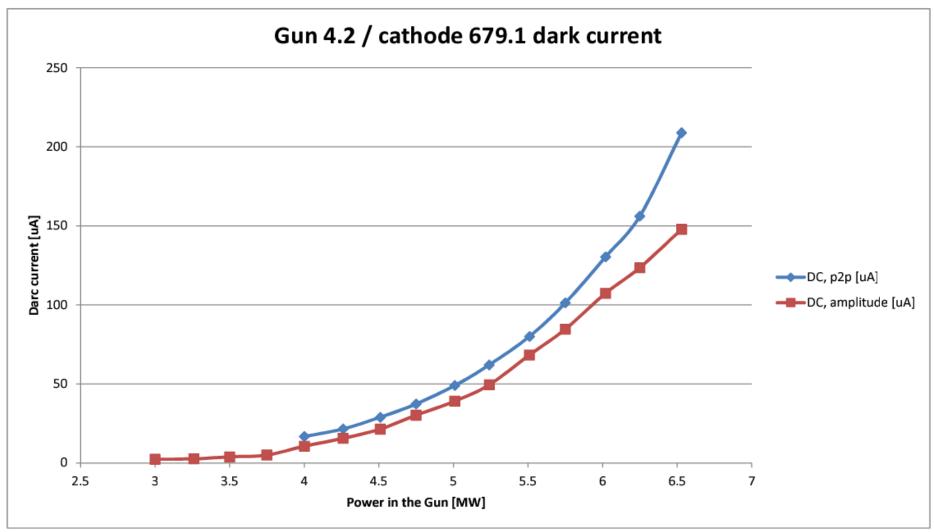


- Plasma cell is commissioned, plasma is produced, ArF laser timing scan is done
- No self modulations is observed with the plasma cell
- Dark current as a function of the gun power is measured
- Laser is realigned on the laser table. Further alignment is required in the tunnel in order to improve the transverse shape
- Phase stability measurements with different sensors
- 3D laser studies



# Dark current vs. power in the gun







### **Stability measurements**



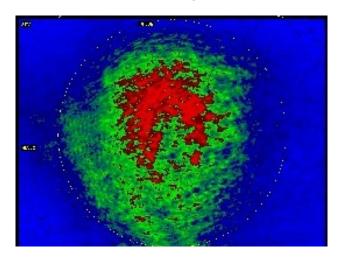
- FB on, WCS operation mode:
  - sensor 1, Trms=0.032deg, Prms=0.023MW, Phi\_rms=0.102deg
  - sensor 3, Trms=0.027deg, Prms=0.026MW, Phi\_rms=0.085deg
  - sensor 5, Trms=0.051deg, Prms=0.027MW, Phi\_rms=0.143deg
- FB on, WCS stabilization mode
  - sensor 1, Trms=0.015deg, Prms=0.025MW, Phi\_rms=0.081deg
  - sensor 3, Trms=0.032deg, Prms=0.027MW, Phi rms=0.1deg
  - sensor 5, Trms=0.042deg, Prms=0.026MW, Phi\_rms=0.1deg



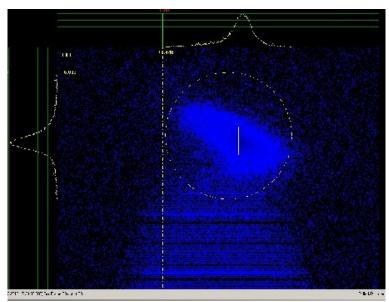
## 3D laser studies



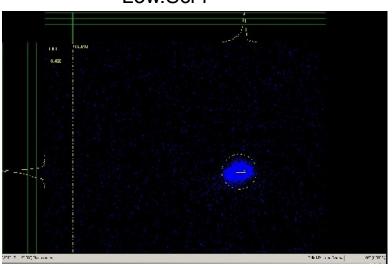
VC2 image



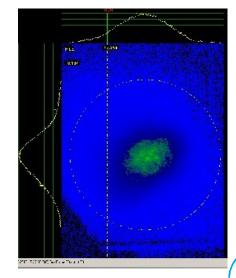
Low.Scr3



Low.Scr1



High1.Scr1



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