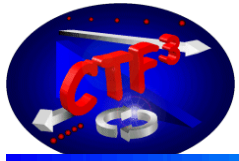


CTF 3 run 2004/2 Planning

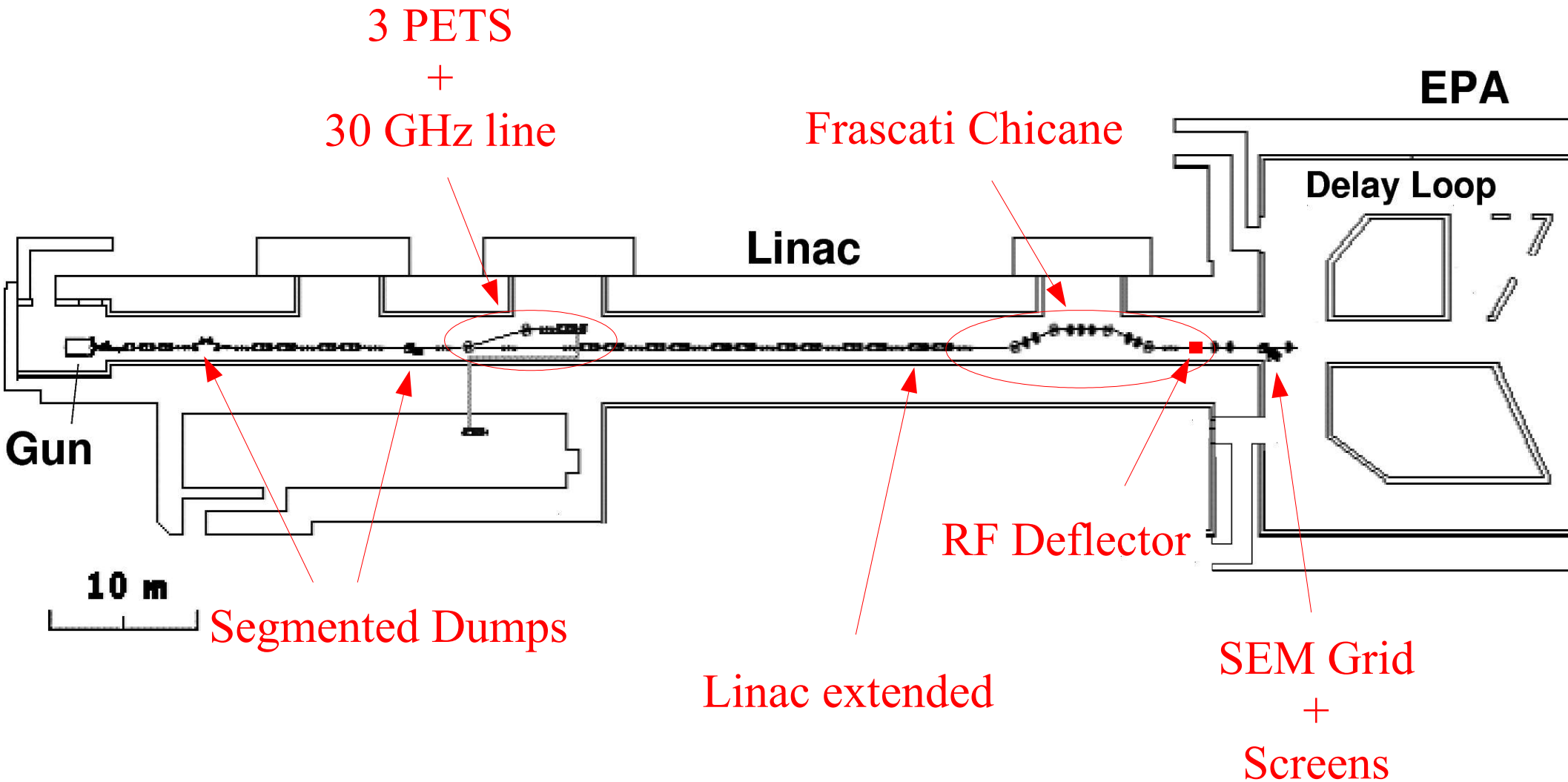


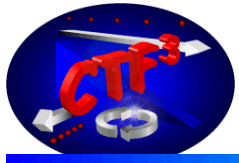
Frank Tecker – AB/OP
for the CTF3 team

- Changes in the machine
- Main goals
- Schedule



Changes in CTF3





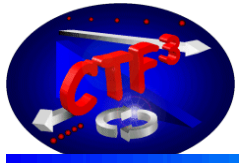
PETS changes



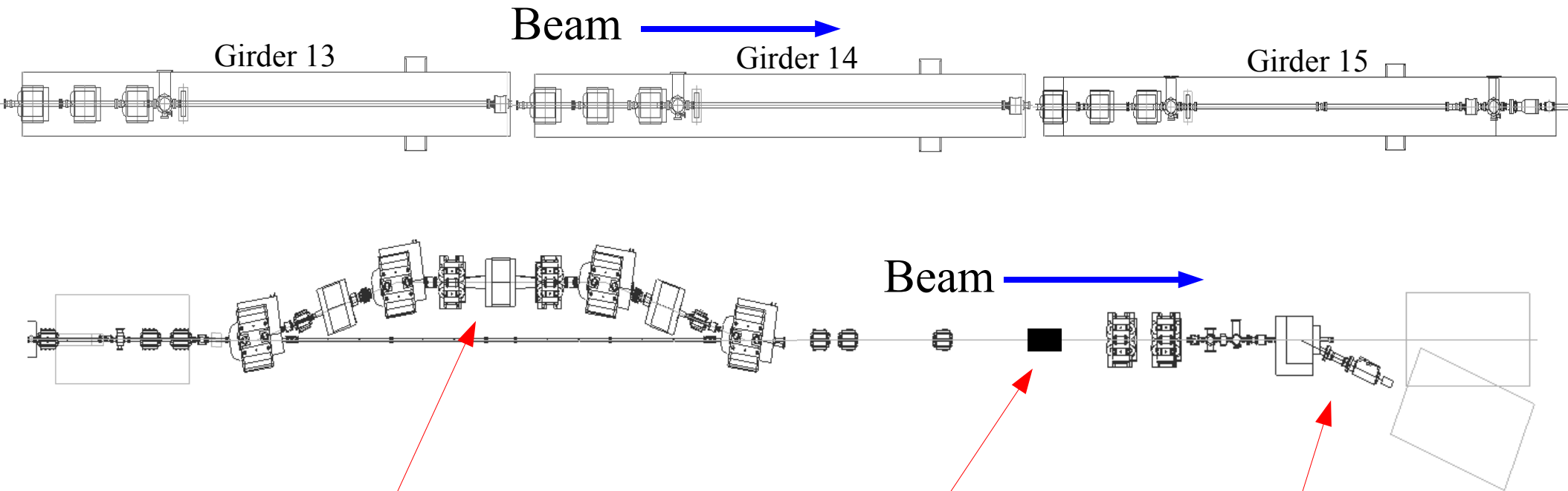
- 3 PETS structures in the tank
- Collimator in front
- 30 GHz line to CTF2
- Interlocked with CTF2

=> see Igor's talk

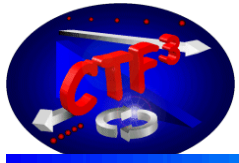




Linac Extension



- 3 more linac girders without RF structures
- Stretching **chicane** by INFN
- **RF deflector** with vertical deflection (MKS14)
- CTS **spectrometer line** with SEM Grid, segm. PMT, screen
- 25 new quadrupoles + correctors



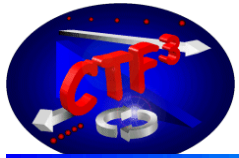
Main Goals



- Commission hardware + software modified since last run
- Re-establish beam transport through PETS line
- Test **30 GHz power production** in PETS line
- Establish **power mode** for PETS
- Preparation for future **RF pulse compression at 30 GHz**

- Commission linac extension and **Frascati line**
- Commission **RF deflector**
- Study bunch compression/lengthening

- Check the **new instrumentation**



CTF3 Schedule Run 2



	Jul				Aug				Sep				
Wk	27	28	29	30	31	32	33	34	35	36	37	38	39
Mo	28	5	12	19	26	2	9	16	23	30	6	13	20
Tu		E P A C						L I N A C					
We													
Th											Jeune G.		
Fr													
Sa													
Su													







Postponed

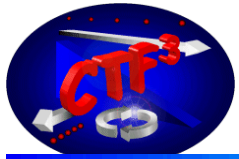
	Oct				Nov				Dec				
Wk	40	41	42	43	44	45	46	47	48	49	50	51	52
Mo	27	4	11	18	25	1	8	15	22	29	6	13	20
Tu						C A R E P H I N		C O L L A B					
We													
Th													
Fr													
Sa			Open day										
Su													

CTF3 stop

All PS complex stop

CTF3 SHUTDOWN

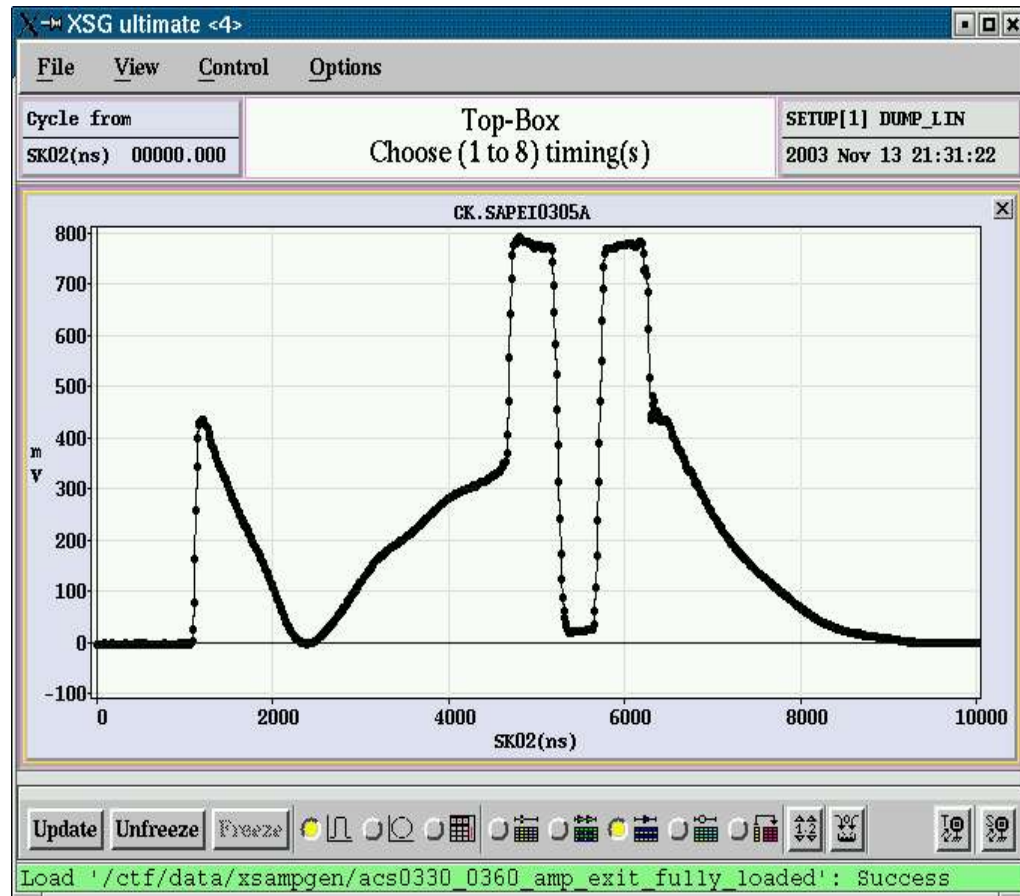
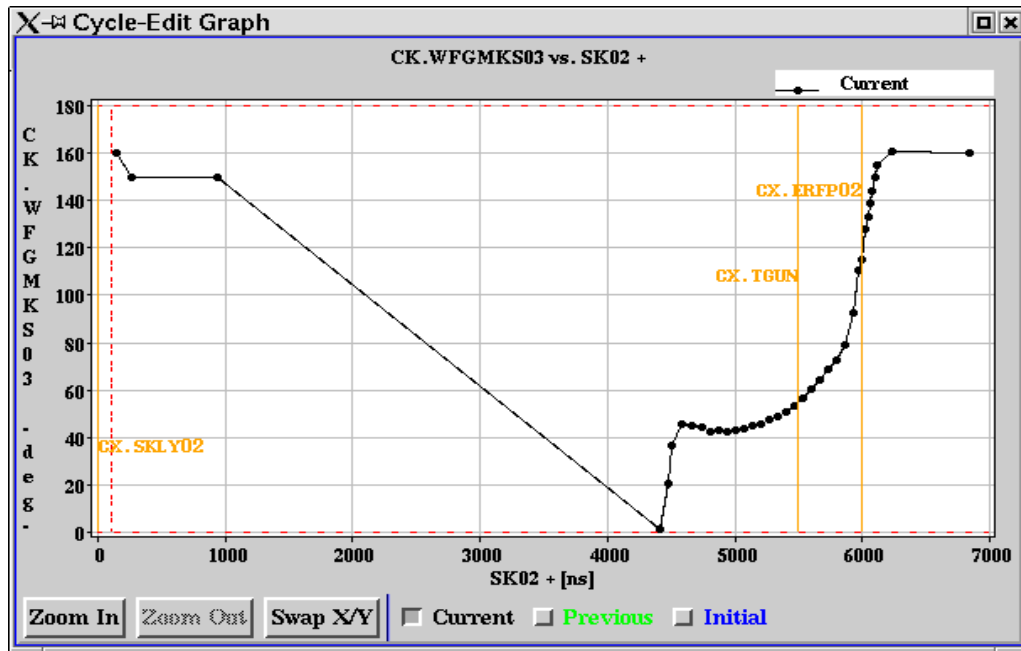
- 
 CTF3 closed with keys for Hardware tests
- 
 CTF3 under access control for machine conditioning
- 
 CTF3 with beam
- 
 CTF3 down-time (free for installation)
- 
 Technical stop for the PS complex
- 
 Shut down

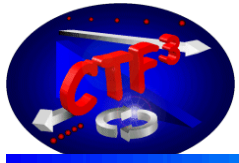


RF conditioning



- Condition all structures
- Adjust calibration and timing for RF signals
- Set up **RF pulse compression** (J-M. Nonglaton's software)
 - 1.5 μs
 - 400 ns
 - Correct phase slip

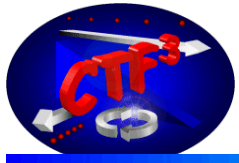




PETS running



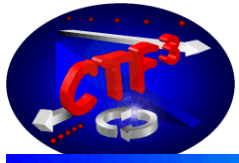
- Prerequisite: MKS02 – MKS06 running
- Set up **low current** (~ 0.5 A) beam \Rightarrow check vacuum
- Re-establish beam for **~ 3 A**
- Beam **optics measurements** (dispersion, quad scan, rematch)
- **Bunch compression** studies
- Put in higher RF compression ratio (at same power level)
- Eventually raise current to **5 A (power mode)**
- 18° phase switch for 30 GHz RF pulse compression



Other Studies



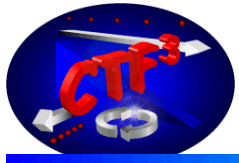
- Injector Studies
 - Solenoid focusing
 - Quad scans => emittance
- Segmented Dumps
- Beam Loss Monitors
- Beam Loss Interlock (WCMs)



Linac + Frascati Line



- Set up the beam through **chicane** (before CERN Open Day)
- Set up of **RF deflector**
- **Radiation Measurement** with nominal beam
- Instrumentation:
 - WCM
 - Cameras
 - SEM Grid
 - Segmented Photomultiplier
- Stretching + compression studies



Final Word



- Let's hope for **less hardware problems**

this time !!!