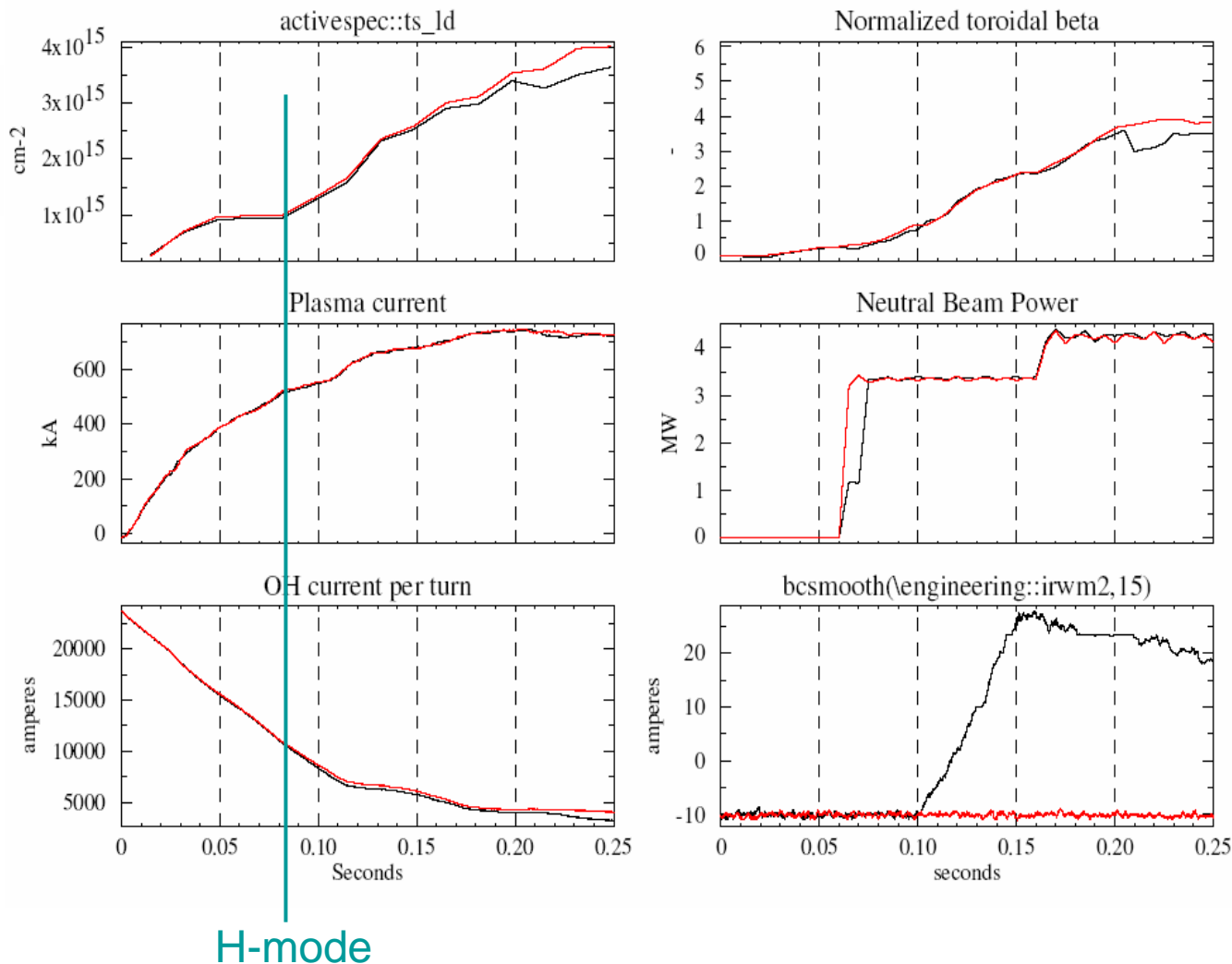


XP614: Comparison of EFC techniques at high β_N

- (re)developed reliable early H-mode target at 700kA by adding 70kV Src C
 - 3-3.5 MW B+C injected by 60-70ms \rightarrow transition by 85ms
- Compared EFC to no EFC early in shot (need comparisons in flat-top)

Shots:
120335
120341

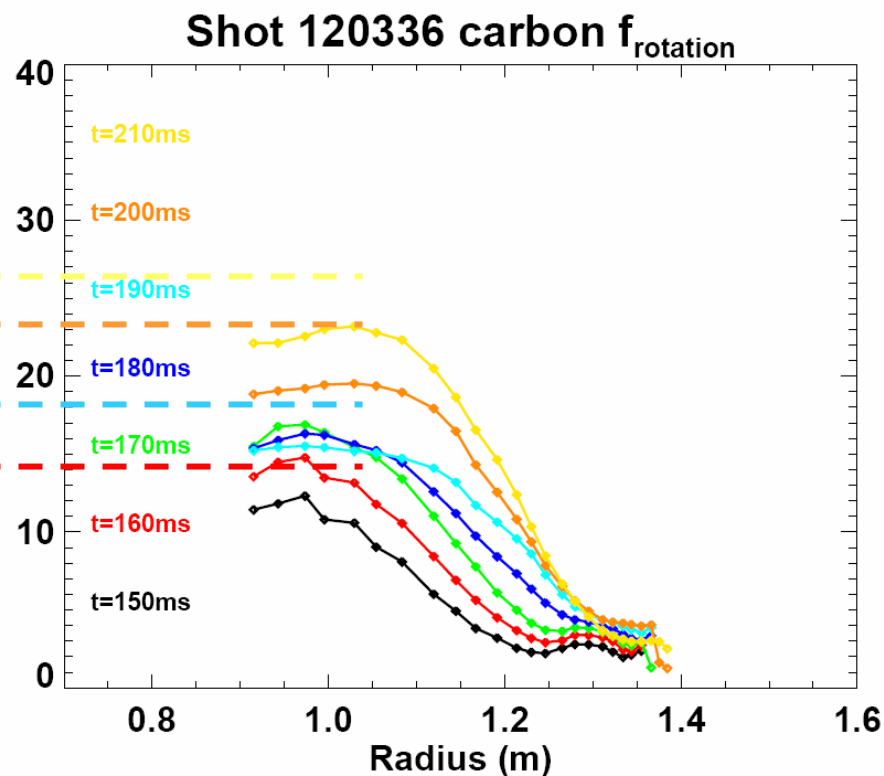
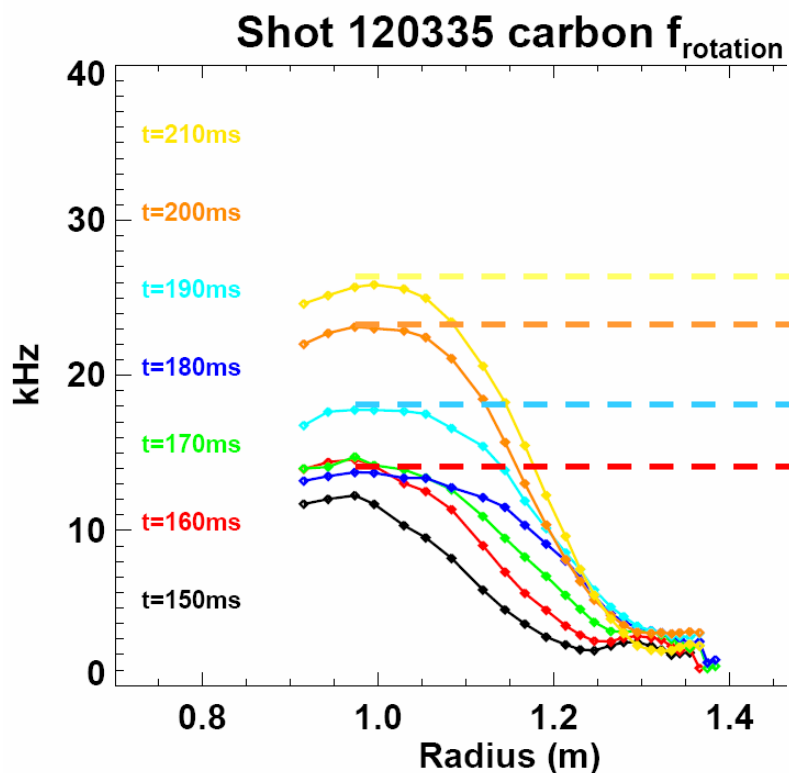


XP614: Comparison of EFC techniques at high β_N

- Applying early EFC can increase early plasma rotation
- Other shots (120336) show smaller increase

Predictive OHxTF EFC on by $t=150\text{ms}$

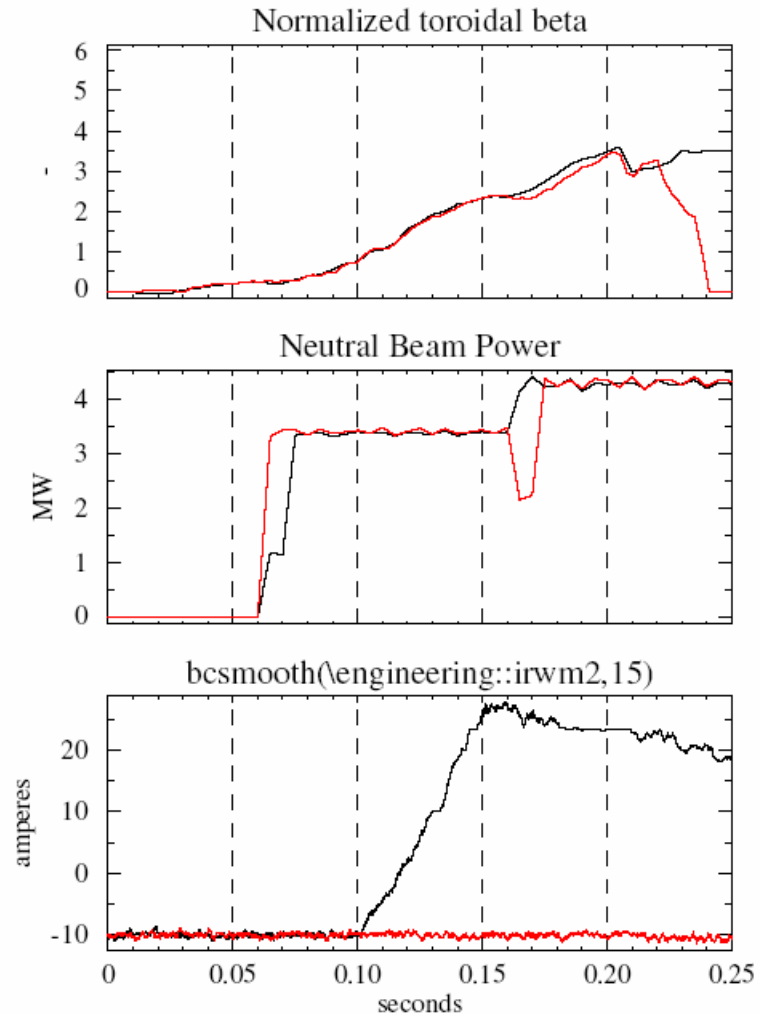
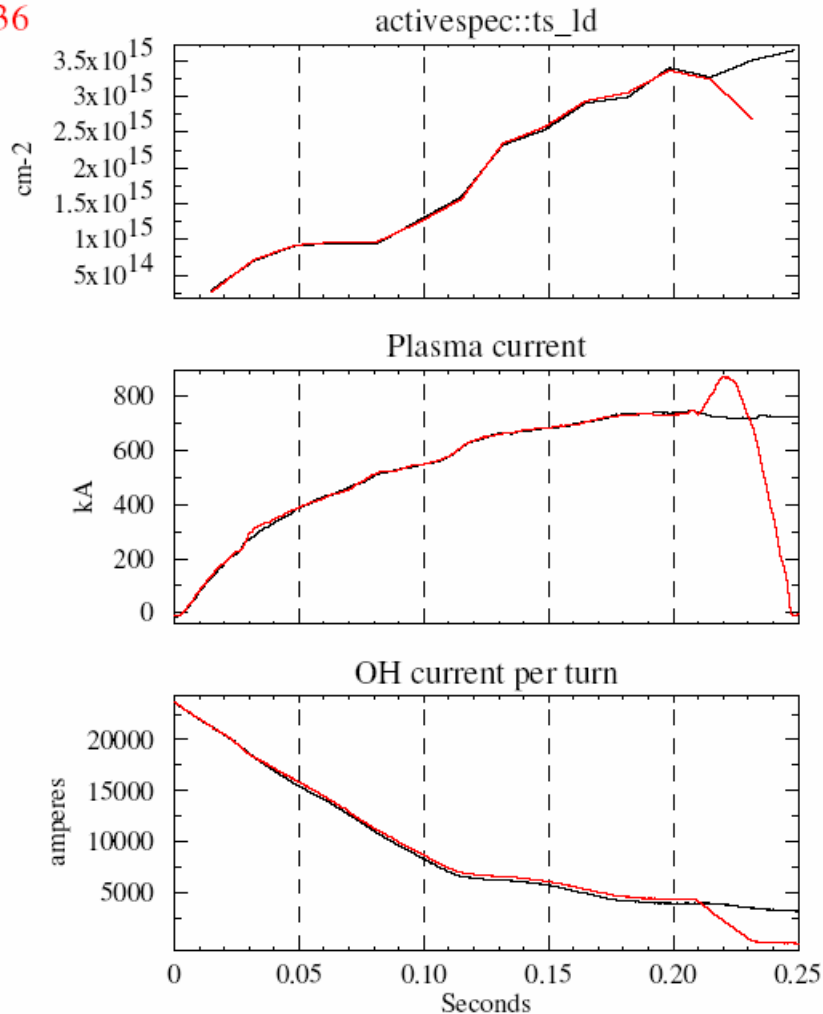
EFC off



XP614: Comparison of EFC techniques at high β_N

- Applying early EFC may make early phase less disruptive
 - but, beam block at 260ms may also be culprit – need comparison shot

Shots:
120335
120336

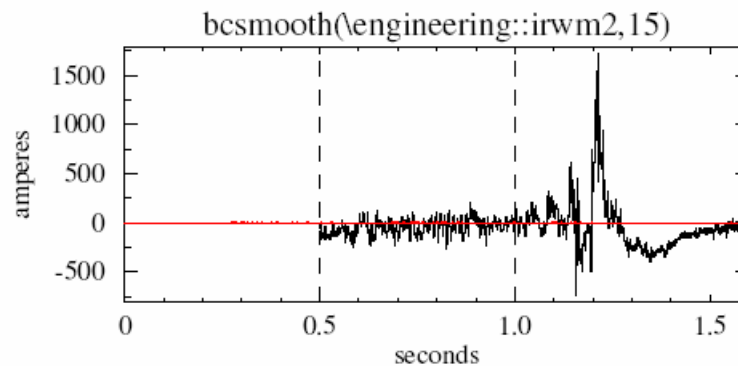
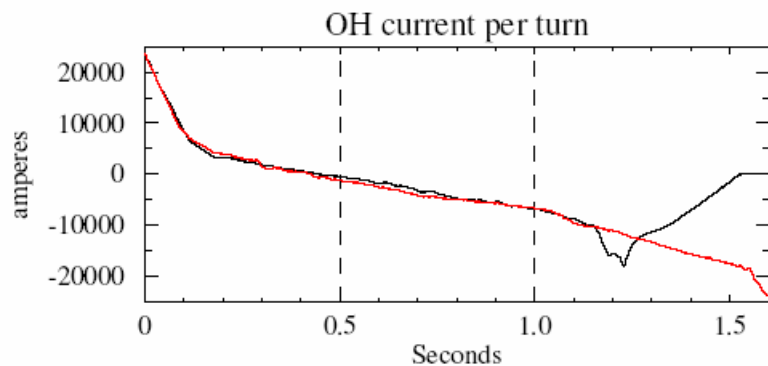
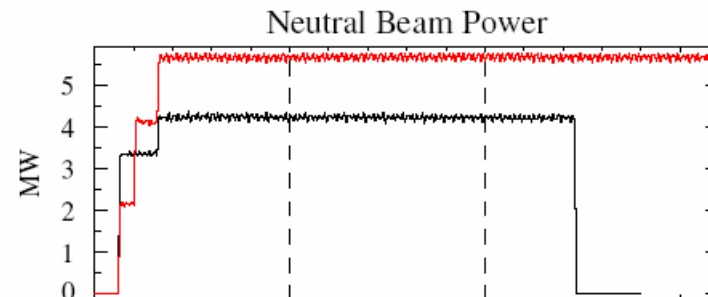
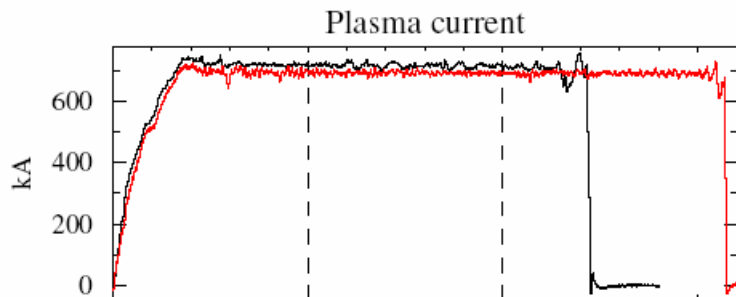
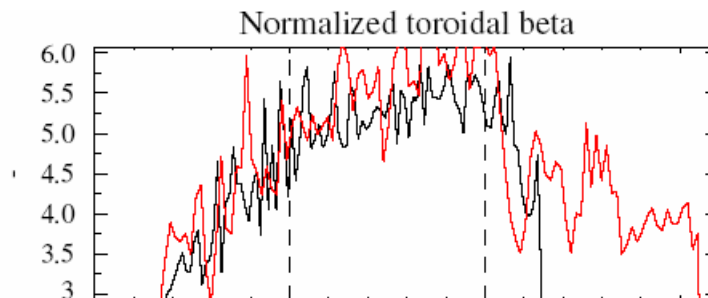
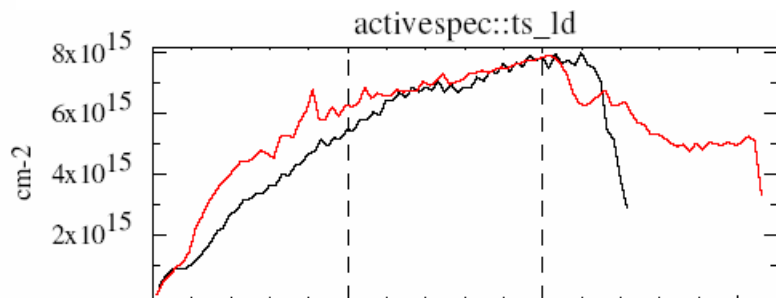


XP614: Comparison of EFC techniques at high β_N

Tested feedback during 700kA long-pulse for first time

- Same flux consumption as 116318 but w/ much lower NBI power
- Improved confinement this year... (and/or cleaner early phase...)

Shots:
120339
116318



XP614: Comparison of EFC techniques at high β_N

Rotation systematically higher in reference shot w/o feedback (116318)

- But NBI power is much lower in this year's shot with feedback...
- Need comparison shots w/o feedback, and with EFC from OHxTF

Shots:
120339
116318

