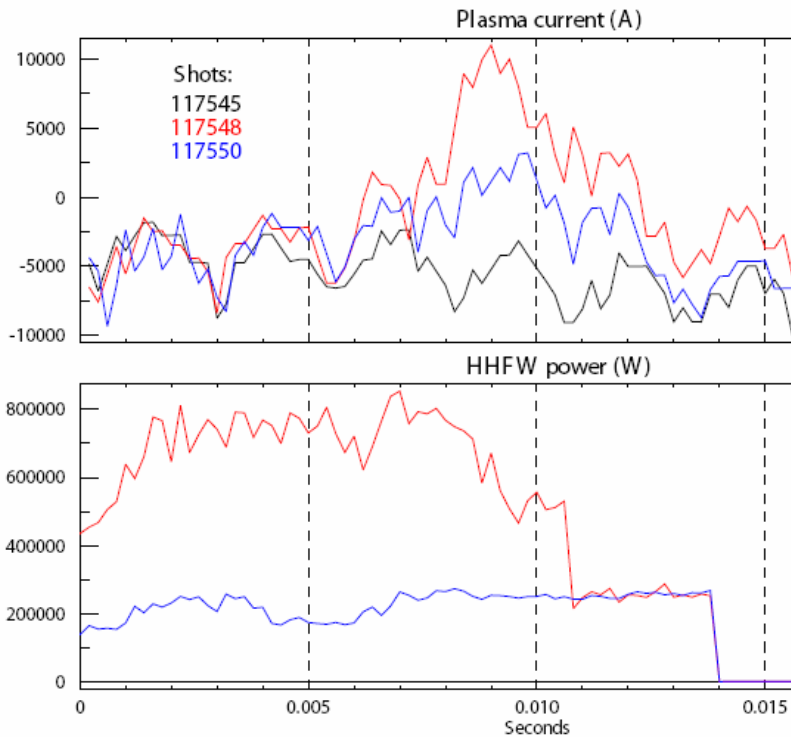


XP510 – PF-only ramp-up w/ outboard field null

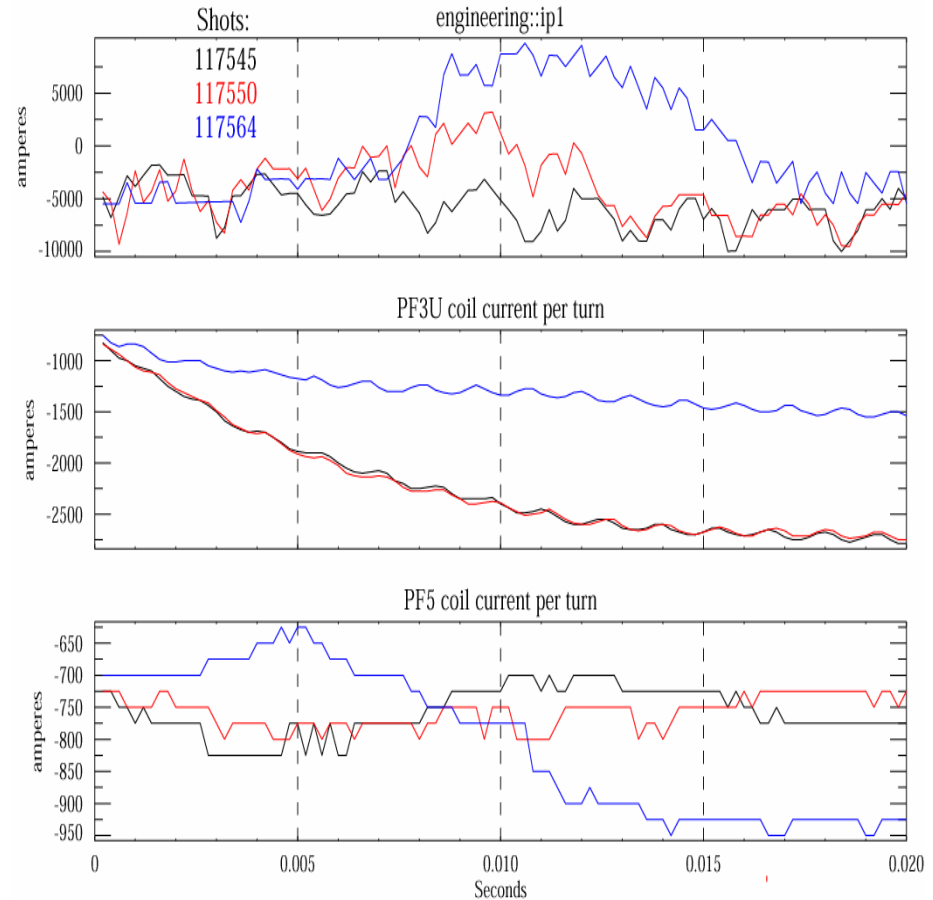


- This year: using more HHFW straps for pre-ionization → up to 800kW



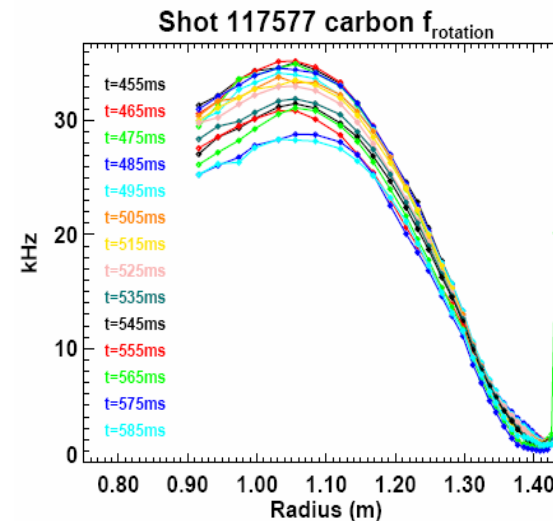
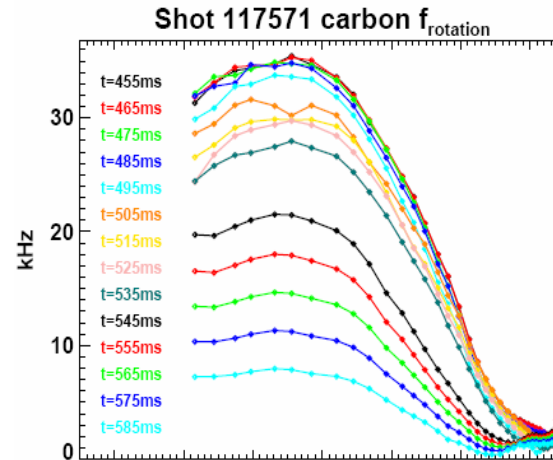
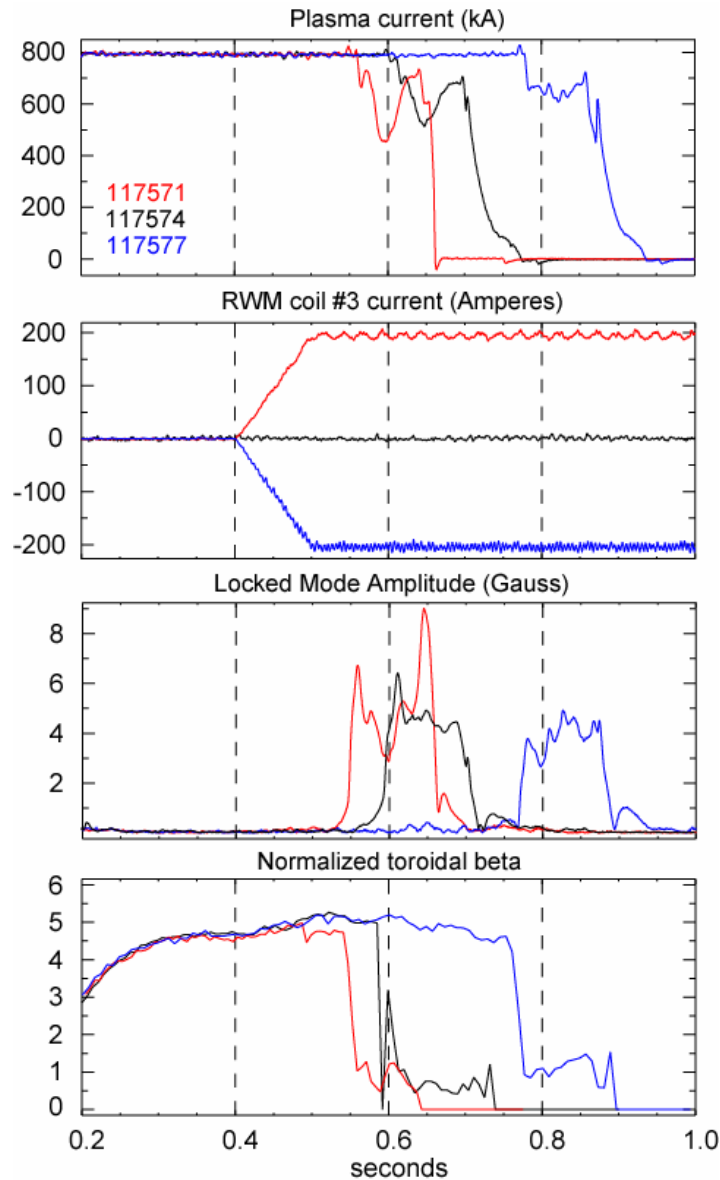
- Max. plasma current increases with pre-ionization power
- Unfortunately, HHFW trips rt-DAQ module in NTC for $P_{RF} > 300\text{kW}$

- Goal of XP: Adjust PF3 & 5 to increase/extend I_p - *progress made*:



- These waveforms project to $I_p =$ approx. 25-30kA with higher P_{RF}

XP507 - Pulse-length extended at high β_N using EFC coils



- Rotation is damped in “non-correcting” directions and leads to earlier island locking and/or RWM formation

- Central rotation is sustained & near-edge rotation locking is avoided in “correcting” direction - extending pulse length at high- β