

XP 905: Current Profile Modifications and Fast Ion Loss from BAAEs/EPMs

Initial results from April 16

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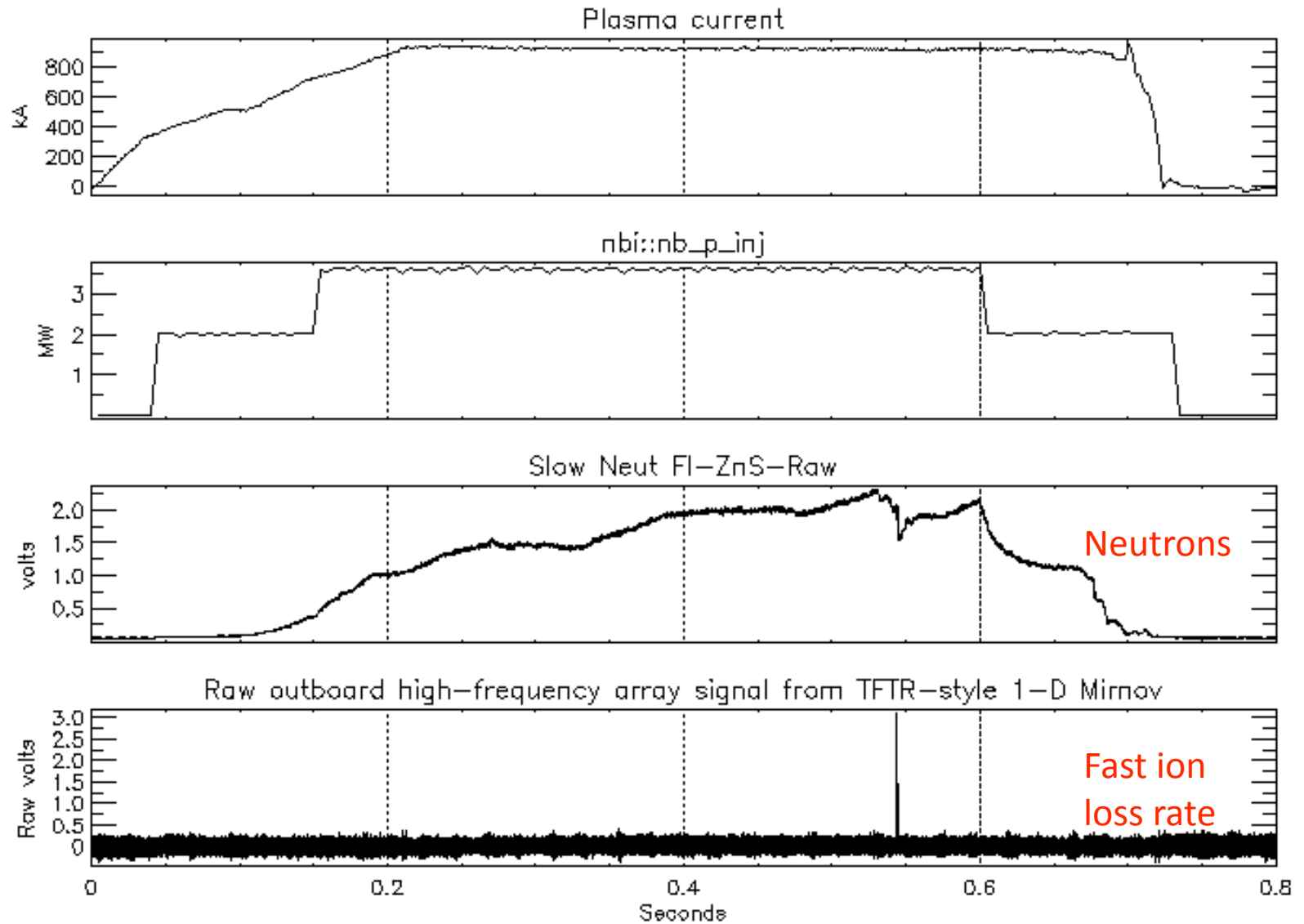
Goals of XP 905

- Generate BAAE/EPM bursts during steady I_p phase of discharge, widely separated enough in time to allow good MSE measurements of the current profile before and after the bursts
- Measure fast ion loss pitch angle and energy distributions
- Measure effects on confined beam ions
- Apply braking to observe mode behavior at low rotation shear

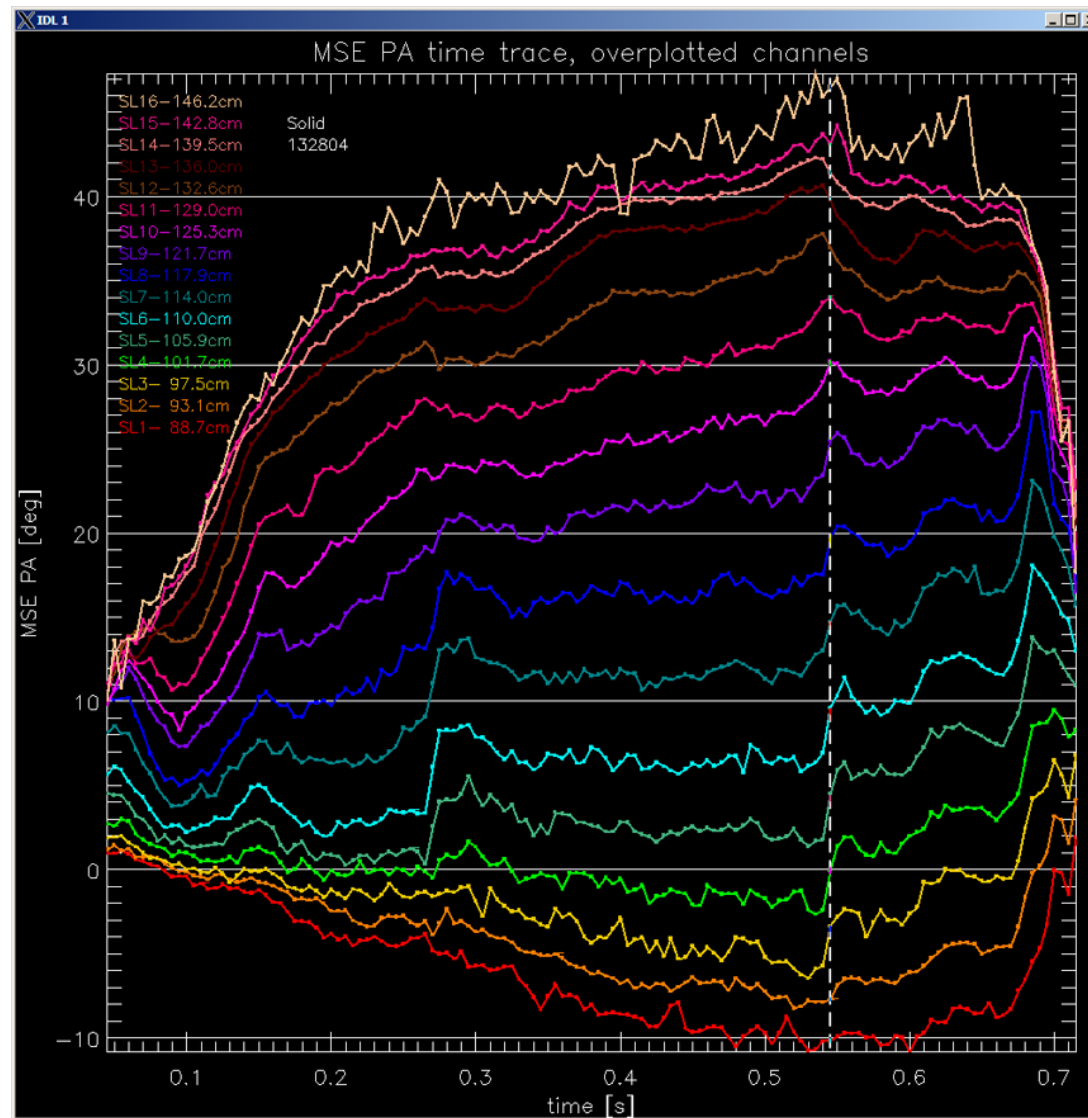
XP 905 Results

- Shots obtained with bursting modes present
- Fortuitously, some shots had a single isolated burst, which will allow for simple before/after analysis $j(r)$ profiles
- Good mode data obtained
- Good fast ion loss data obtained
- But, n_e was too high for good FIDA data
- Braking did not slow rotation as much as desired

Shots:
132804



MSE profile change correlated in time with burst



Additional shots may be sought

- Lower n_e for FIDA
- Stronger braking to measure modes at near zero rotation frequency