[구SS-01] Rapid Formation and Disappearance of a Filament Barb

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Observations of a filament showing an activated barb recorded from the at the Dutch Open Telescope (DOT) on 2010 August 20 are presented. The filament developed a barb in 10 minutes, which disappeared within the next 35 minutes. Such a rapid formation and disappearance of a filament barb is unusual, and has been seldom reported. Line-of-sight velocity maps were constructed from images in seven line positions along the H-alpha line. We observe flows in the filament spine towards the barb location prior to its formation, and flows in the barb towards the spine during its disappearance. Photospheric magnetograms from Helioseismic Magnetic Imager on board the Solar Dynamics Observatory were used to determine the changes in magnetic flux in the region surrounding the barb location. The variation of magnetic flux in this duration support the view that barbs are rooted in minor magnetic polarity.

[구SS-02] NST/FISS Observations of Ellerman bombs and Surges

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Ellerman bombs(EBs) are emission features at the wings of the H alpha spectral line. They are believed to be a kind of a magnetic reconnection feature in the low chromosphere or near photosphere. It was previously reported that surges often occur in association with EBs. However, previous observations were restricted to imaging observation. Using Fast Imaging Solar Spectrograph installed in New Solar Telescope at Big Bear Solar Observatory, California, we observed 5 EBs and associated surges with high-spatial and high-spectral resolutions. In this presentation, we will show the results and discuss the physical properties.