PROPOSAL FOR MWA PUBLICATION

[Date circulated: 2015/07/28]

Publication Title:	First season MWA EoR power spectrum results at redshift 7.
Principal Contact: The Principal Contact must be an Individual Member of the MWA collaboration (as defined in the MWA Membership Policy) and *cannot* be a student. This does not have to be the same person as the primary author. Please provide institution affiliation and email address.	Adam Beardsley Arizona State University / University of Washington Adam.Beardsley@asu.edu
Author List: Please specify all authors of the paper. It is sufficient to reference the Builders List without writing the names on that list, but all additional authors must be explicitly stated.	A.P. Beardsley, B.J. Hazelton, I.S. Sullivan, P. Carroll, N. Barry, M.F. Morales, D.C. Jacobs, EoR List
Anticipated date of draft submission for Collaboration review:	2015/08/10
Intended journal:	ApJ

Paper Summary:

This paper will be an adaptation of the main result of Beardsley's thesis (thesis found on the MWA wiki here: http://mwa-lfd.haystack.mit.edu/twiki/pub/Main/StudentProjects/Beardsley_PhDThesis_2015.pdf). The paper will focus on the characterization and analysis of EoR0, high band (z ~ 6.8) data from 23 August, 2013 through 29 November, 2013, primarily using the FHD => eppsilon pipeline described in Jacobs, et al, 2015 (in review), and Hazelton, et al, 2015 (in prep), culminating in the deepest imaging-based EoR power spectrum limit to date, and the deepest integration from the MWA so far (32 hours). Empirical foreground models were developed using the August 23 so-called "golden data set" – an extragalactic point source model will be described in Carroll, et al, 2015 (in prep, proposed to collaboration), and a large scale diffuse model will be described in this paper. Per the new EoR collaboration agreement, these results will be compared with results from the RTS => CHIPS pipeline described in Jacobs, et al, 2015, Mitchell, et al, 2015 (in prep), and Trott, et al, 2015 (in collaboration review).