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Band Structures and Nucleon Alignments in ^{173,175}W C.J. GUESS, S.K. TANDEL¹, P. CHOWDHURY, U. SHIRWADKAR, Department of Physics, University of Massachusetts Lowell, Lowell, MA 01854, USA, M.P. CARPENTER, R.V.F. JANSSENS, T.L. KHOO, T. LAURITSEN, C.J. LISTER, D. SEWERY-NIAK, X. WANG, S. ZHU, Argonne National Laboratory, Argonne, IL 60439, USA, D.J. HARTLEY, Department of Physics, U.S. Naval Academy, Annapolis, MD 21402, USA — Spectroscopic study of nuclei in the $A \sim 180$ region is essential to better understand regional relationships between Nilsson orbitals. Highly excited rotational states in both nuclei were populated at Argonne National Laboratory via a 230 MeV 50 Ti beam from the ATLAS accelerator incident on a 128 Te target. The Gammasphere array was used to detect γ decays from excited states. Rotational bands built on the level $1/2^{-521}$, $p_{3/2}$ in $^{173,175}W$ have been extended to spins of 40 and $35\hbar$ respectively, and bands built on the 7/2⁺[633], $i_{13/2}$ configuration extended to 38 and $27\hbar$ respectively. New sidebands in ^{173}W have been observed in all previously-discovered bands. Alignments from $i_{13/2}$ neutron and $h_{11/2}$ proton crossings are consistent with predictions of Woods-Saxon cranking calculations. Experimental results and regional systematics will be presented.

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