## GBT Observing Schedule for December 2004

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Investigators</th>
<th>Institute</th>
<th>NRAO Friend</th>
<th>Title</th>
<th>Bands</th>
<th>Back Ends</th>
<th>Days *</th>
<th>Hrs *</th>
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</thead>
<tbody>
<tr>
<td>BB191</td>
<td>Barvains, R. E. Ulvestad, J. Birkinshaw, M. Lehar, J.</td>
<td>National Science Foundation NRAO University of Bristol CombinatoRx</td>
<td></td>
<td>Are Radio-Quiet Quasars Superluminal?</td>
<td>C</td>
<td>V</td>
<td>26</td>
<td>10.00</td>
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<td>BG155</td>
<td>Greenhill, L. J. Madejski, G. M. Henkel, C. Peck, A.B. Braatz, J. A. Wilson, A. S.</td>
<td>Harvard-Smithsonian Stanford Max-Planck-Institut fur Radioa CIA NRAO University of Maryland</td>
<td></td>
<td>Mapping the Accretion disk in the IC2560 AGN and implications for H0</td>
<td>K</td>
<td>V</td>
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<td>BJ054</td>
<td>Jackson, N. Browne, I. W. A. York, T. Mao, S. Porcas, R. Biggs, A.</td>
<td>NRAI NRAI Jodrell Bank University of Manchester MPIfR JIVE</td>
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<td>Detection of a third image in CLASS B1030+074</td>
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<td>V</td>
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<td>4.00</td>
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<td>BP116</td>
<td>Piner, B.G. Edwards, P.G. Jones, D. L. Murphy, D. W.</td>
<td>Whittier College Institute of Space and Astrona JPL JPL</td>
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<td>Space VLBI without the Space: Using the High Sensitivity Array to Measure High Brightness Temperatures</td>
<td>C</td>
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<td>BW076</td>
<td>Winn, J. Rusin, D. Kochanek, C. S.</td>
<td>CIA CIA Ohio State</td>
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<td>Gravitational lensing by a supermassive black hole [J. Winn]</td>
<td>X</td>
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<td>24</td>
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<td>GBT01A-029</td>
<td>Eales, S. Carilli, C. L. Dunne, L. Ivison, R. J.</td>
<td>Cardiff University NRAO Cardiff University Astronomy Technology Centre</td>
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<td>A First Investigation of the Origin of Galaxies with the GBT [S. Eales]</td>
<td>K</td>
<td>S</td>
<td>23</td>
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<tr>
<td>GBT02B-020</td>
<td>Benford, D. Hunter, T. Staguhn, J</td>
<td>NASA/Goddard Space Flight Center Center for Astrophysics NASA/Goddard Space Flight Center</td>
<td></td>
<td>Search for Low Excitation Molecular Gas in High Redshift Quasars (CO) [D. Benford]</td>
<td>K</td>
<td>SD</td>
<td>(19 20 21 22 23)</td>
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<td>GBT02C-025</td>
<td>Greve, T.R. Ivison, R. J. Carilli, C. L. Papadopoulos, P. P. Lewis, G.F.</td>
<td>Caltech (Physics, Maths and Astronomy) Astronomy Technology Centre NRAO Leiden University Sydney U</td>
<td></td>
<td>CO(1-0) in the 'big five' high-z sources [T.R. Greve]</td>
<td>K</td>
<td>S</td>
<td>4 (7 8 9)</td>
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<td>GBT02C-050</td>
<td>Blain, A. Chapman, S. Ivison, R. J.</td>
<td>Caltech Astronomy Caltech Physics Astronomy Technology Centre</td>
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<td>Survey for CO(1-0) from dusty galaxies at the highest redshifts [A. Blain]</td>
<td>K</td>
<td>S</td>
<td>12</td>
<td>17.50</td>
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Gregorian Bands: Q=40-50GHz, K=18-26.5GHz, U=12.4-15.4GHz, X=8.2-10.0GHz, C=3.95-5.85GHz, S=1.73-2.6GHz, L=1.15-1.73GHz
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* [ ] indicates secondary project; ( ) indicates primary project
Back Ends: 2=S2 recorder, B=BCPM, C=cGBPP, D=Digital Continuum Receiver, O=user supplied, P=Spectral Processor, S=Spectrometer, V=VLBA recorder

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<th>Hrs *</th>
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<tr>
<td>GBT04A-030</td>
<td>Stairs, I., Thorsett, S., Arzoumanian, Z., Ferdman, R.</td>
<td>University of British Columbia University of California, Santa Cruz NASA/GSFC University of British Columbia</td>
<td></td>
<td>High-Precision Timing of Binary Pulsars at the GBT [I. Stairs]</td>
<td>L</td>
<td>PG</td>
<td>[31]</td>
<td>[2.00]</td>
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<td>GBT04B-014</td>
<td>Kondratko, P.T., Greenhill, L. J., Moran, J. M., Braatz, J. A.</td>
<td>Harvard University Harvard-Smithsonian Center for Astrophysics</td>
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<td>Anchoring the Extragalactic Distance Scale [P.T. Kondratko]</td>
<td>KU</td>
<td>S</td>
<td>(30 31)</td>
<td>(23.50)</td>
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SRSUMMARY 2
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<th>Title</th>
<th>Bands</th>
<th>Back Ends</th>
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<th>Hrs *</th>
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<tr>
<td>GBT04C-021</td>
<td>Wang, Y. Zheng, X.W. Zhang, Q. Ho, P. T. P.</td>
<td>CFA Nanjing University</td>
<td>Harvard-Smithsonian Center for Astrophysics</td>
<td>Large-scale structures, fragmentation and cluster formation in OMC-2 and OMC-3 [Y. Wang]</td>
<td>K</td>
<td>S</td>
<td>(4 5 6 7)</td>
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<td>GBT04C-022</td>
<td>Ma, C. Lim, J.</td>
<td>National Taiwan University</td>
<td>Academia Sinica, IAA</td>
<td>Search for HI gas in the Central Molecular-Gas-Rich Elliptical Galaxies of Rich Clusters [C. Ma]</td>
<td>L</td>
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<td>GBT04C-023</td>
<td>Knight, H. Jacoby, B. Bailes, M. Ord, S. Kulkarni, S. R. Hotan, H.</td>
<td>Swinburne University of Technology</td>
<td>Swinburne University of Technology</td>
<td>High Time Resolution Giant Pulse Searches [H. Knight]</td>
<td>8L</td>
<td>O</td>
<td>[14 15 16 17]</td>
<td>[26.00]</td>
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<tr>
<td>GBT04C-025</td>
<td>McLaughlin, M. Lyne, A. G. Kramer, M. Lorimer, D. Stairs, I. Manchester, D.R. N.</td>
<td>University of Manchester</td>
<td>University of Manchester</td>
<td>Investigating a New Class of Transient Radio Sources [M. McLaughlin]</td>
<td>8</td>
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<td>5 8 9</td>
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SRSUMMARY 3

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<th>Investigators</th>
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<tr>
<td>GBT04C-040</td>
<td>Margot, J.L.</td>
<td>Cornell University</td>
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<td>The interior of Mercury revealed by its spin dynamics [J.L. Margot]</td>
<td>X</td>
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<td>Peale, S.</td>
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<td>GBT04C-056</td>
<td>Demorest, P.</td>
<td>UC Berkeley (Physics)</td>
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<td>Precision Timing of Binary and Millisecond Pulsars [P. Demorest]</td>
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<td>4 (8 10 14 16)</td>
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<td>Cameron, Patrick Pannuti, T.</td>
<td>Caltech Astronomy</td>
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<td>Search for radio pulsations from a new X-ray pulsar in CTB 1 [Patrick Cameron]</td>
<td>B</td>
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<td>[4 5 6 7]</td>
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<td>Un-assigned Shutdown</td>
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<td>[7 9 14 15 16 17]</td>
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<td>(5 7 8 10 12 13 14 16 18 19 21 24 26)</td>
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<td>28.75 [38.00]</td>
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<th>Hrs *</th>
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<tr>
<td>Tests</td>
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<td>LSC DSP</td>
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Total Hrs
- Shutdown: 36.00
- Astronomy: 439.25
- Setup: 52.75
- Commissioning: 48.50
- Maintenance: 36.00
- Un-assigned: 44.25
- Tests: 87.25
- Total: 879.00

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