<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 1 Fr</td>
<td>18:00</td>
<td>23:59</td>
<td>D</td>
<td>008</td>
<td>Greathouse</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:00</td>
<td>02:30</td>
<td>D</td>
<td>007</td>
<td>Beck</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 2 --</td>
<td>02:30</td>
<td>06:00</td>
<td>D,B</td>
<td>045</td>
<td>Fletcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>D</td>
<td>008</td>
<td>Greathouse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 3 --</td>
<td>00:00</td>
<td>02:30</td>
<td>D</td>
<td>007</td>
<td>Beck</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>06:00</td>
<td>D</td>
<td>045</td>
<td>Fletcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>B</td>
<td>008</td>
<td>Greathouse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 4 Mo</td>
<td>00:00</td>
<td>02:30</td>
<td>B</td>
<td>007</td>
<td>Beck</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>06:00</td>
<td>B</td>
<td>045</td>
<td>Fletcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>B</td>
<td>008</td>
<td>Greathouse</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 5 Tu</td>
<td>00:00</td>
<td>02:30</td>
<td>B</td>
<td>007</td>
<td>Beck</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>06:00</td>
<td>B</td>
<td>045</td>
<td>Fletcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>B,E</td>
<td>044</td>
<td>Orton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 6 We</td>
<td>00:00</td>
<td>02:30</td>
<td>B</td>
<td>007</td>
<td>Beck</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>06:00</td>
<td>B</td>
<td>045</td>
<td>Fletcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>E</td>
<td>044</td>
<td>Orton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 7 Th</td>
<td>00:00</td>
<td>02:30</td>
<td>E</td>
<td>007</td>
<td>Beck</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>06:00</td>
<td>E</td>
<td>045</td>
<td>Fletcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>06:00</td>
<td>E</td>
<td>038</td>
<td>Benecchi</td>
<td>SJB</td>
<td>First Night</td>
</tr>
<tr>
<td>Feb. 8 Fr</td>
<td>18:00</td>
<td>23:59</td>
<td>E,D</td>
<td>044</td>
<td>Orton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 9 --</td>
<td>00:00</td>
<td>02:30</td>
<td>E</td>
<td>007</td>
<td>Beck</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>06:00</td>
<td>E</td>
<td>045</td>
<td>Fletcher</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:45</td>
<td>D</td>
<td>076</td>
<td>Tsang</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:45</td>
<td>05:40</td>
<td>D</td>
<td>101</td>
<td>Kaluna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 10--</td>
<td>05:40</td>
<td>06:00</td>
<td>D</td>
<td>054</td>
<td>Schaller</td>
<td>SJB</td>
<td>Service Obs</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:45</td>
<td>D</td>
<td>076</td>
<td>Tsang</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:45</td>
<td>05:40</td>
<td>D</td>
<td>101</td>
<td>Kaluna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 11 Mo</td>
<td>05:40</td>
<td>06:00</td>
<td>D</td>
<td>054</td>
<td>Schaller</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:45</td>
<td>D,B</td>
<td>076</td>
<td>Tsang</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:45</td>
<td>05:40</td>
<td>D</td>
<td>101</td>
<td>Kaluna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 12 Tu</td>
<td>05:40</td>
<td>06:00</td>
<td>D</td>
<td>054</td>
<td>Schaller</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>05:40</td>
<td>B</td>
<td>101</td>
<td>Kaluna</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 13 We</td>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>054</td>
<td>Schaller</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>06:00</td>
<td>B</td>
<td>001</td>
<td>Grundy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 14 Th</td>
<td>18:00</td>
<td>23:59</td>
<td>B,E</td>
<td>101</td>
<td>Kaluna</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Feb. 15 Fr</td>
<td>00:00</td>
<td>05:40</td>
<td>B</td>
<td>090</td>
<td>Wolters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>054</td>
<td>Schaller</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>E</td>
<td>055</td>
<td>Gagne</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td>Feb. 16 --</td>
<td>00:00</td>
<td>05:40</td>
<td>E</td>
<td>090</td>
<td>Wolters</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>054</td>
<td>Schaller</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>22:00</td>
<td>E</td>
<td>031</td>
<td>Crossfield</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22:00</td>
<td>06:00</td>
<td>E</td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Feb. 17 --</td>
<td>18:00</td>
<td>05:40</td>
<td>E,D</td>
<td>055</td>
<td>Gagne</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td>Feb. 18 Mo</td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>054</td>
<td>Schaller</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>05:40</td>
<td>D</td>
<td>055</td>
<td>Gagne</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td>HST Date</td>
<td>HST Time</td>
<td>TO</td>
<td>Remote</td>
<td>Prog and PI</td>
<td>Instrument</td>
<td>SA</td>
<td>Comments</td>
</tr>
<tr>
<td>------------</td>
<td>----------</td>
<td>----</td>
<td>--------</td>
<td>-------------</td>
<td>------------</td>
<td>----</td>
<td>----------</td>
</tr>
<tr>
<td>Feb. 19 Tu</td>
<td>05:40</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>075</td>
<td>CSHELL</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Feb. 20 We</td>
<td>00:30</td>
<td>D</td>
<td>X</td>
<td>069</td>
<td>Lisse</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>B</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Feb. 21 Th</td>
<td>00:30</td>
<td>D</td>
<td>X</td>
<td>069</td>
<td>Lisse</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Feb. 22 Fr</td>
<td>00:15</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>05:40</td>
<td>B</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>069</td>
<td>Lisse</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:15</td>
<td>B,E</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>05:40</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Feb. 23 --</td>
<td>00:15</td>
<td>B</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:15</td>
<td>B</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Feb. 24 --</td>
<td>09:00</td>
<td>D</td>
<td>X</td>
<td>071</td>
<td>DiSanti</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Feb. 25 Mo</td>
<td>01:00</td>
<td>E</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>09:00</td>
<td>C</td>
<td>X</td>
<td>071</td>
<td>DiSanti</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>075</td>
<td>Crockett</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Feb. 26 Tu</td>
<td>01:00</td>
<td>E</td>
<td>X</td>
<td>075</td>
<td>DiSanti</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>09:00</td>
<td>C</td>
<td>X</td>
<td>071</td>
<td>DiSanti</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>075</td>
<td>DiSanti</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td>Feb. 27 We</td>
<td>00:15</td>
<td>E</td>
<td>X</td>
<td>040</td>
<td>Faherty</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>05:40</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>040</td>
<td>Faherty</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Feb. 28 Th</td>
<td>01:00</td>
<td>E</td>
<td>X</td>
<td>040</td>
<td>Faherty</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>05:40</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>002</td>
<td>DeMeo</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
</tbody>
</table>

**Additional Observers**

001 Will Grundy  
002 Francesca DeMeo, Richard Binzel, David Polishook, Benoit Carry  
007 Sara Beck, John Lacy, Jean Turner  
008 Thomas Greathouse, Glenn Orton  
011 Michal Simon, Joshua Schlieder  
030 Ian Crossfield  
031 Ian Crossfield, Carolina Bergfors, Wolfgang Brandner, Maria Lenius  
038 Susan Benecchi, Keith Noll, Audrey Thirouin  
040 Jacqueline Faherty, Sebastian Lepine, Andrew West, Saurav Dhital  
044 Glenn Orton, Tommy Greathouse, Leigh Fletcher  
045 Leigh Fletcher, Glenn Orton, Tommy Greathouse  
054 Emily Schaller, Henry Roe, Michael Brown  
055 Jonathan Gagne, Rene Doyon, David Lafreniere, Lison Malo, Etienne Artigau, Marie-Eve Naud  
069 Carey Lisse, Mike Sitko, John Rayner, Neil Dello Russo, John Carr, Christine Chen, Ron Vervack  
075 Christopher Crockett, Lisa Prato, Christopher Johns-Krull, Pat Hartigan, Dan Jaffe, Charles Beichman  
076 Constantine Tsang, John Spencer, Emmanuel Lellouch, Matt Ritcher, Thomas Greathouse  
090 Stephen Wolters, Paul Weissman, Sam Duddy  
101 Heather Kaluna, Karen Meech, Bin Yang  

**February 2013**
<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
</table>

FEBRUARY 2013  IRTF TELESCOPE SCHEDULE:

07/02/13 v8.0
<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 1 Fr</td>
<td>05:40</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>18:00</td>
<td>22:00</td>
<td>D,B</td>
<td>X</td>
<td>021</td>
<td>Orton</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>22:00</td>
<td>02:00</td>
<td>D</td>
<td>X</td>
<td>090</td>
<td>Wolters</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Mar. 2 --</td>
<td>02:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>020</td>
<td>Orton</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>22:00</td>
<td>B</td>
<td>X</td>
<td>021</td>
<td>Orton</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>22:00</td>
<td>02:00</td>
<td>B</td>
<td>X</td>
<td>090</td>
<td>Wolters</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Mar. 3 --</td>
<td>02:00</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>020</td>
<td>Orton</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>B</td>
<td>X</td>
<td>040</td>
<td>Faherty</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Mar. 4 Mo</td>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>21:00</td>
<td>B,E</td>
<td>X</td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
<td>JTR</td>
</tr>
<tr>
<td>21:00</td>
<td>01:00</td>
<td>B</td>
<td>X</td>
<td>039</td>
<td>Gulbis</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Mar. 5 Tu</td>
<td>01:00</td>
<td>05:40</td>
<td>B</td>
<td>X</td>
<td>040</td>
<td>Faherty</td>
<td>SpeX</td>
</tr>
<tr>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>18:00</td>
<td>23:00</td>
<td>E</td>
<td>X</td>
<td>053</td>
<td>Polishook</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>23:00</td>
<td>05:40</td>
<td>E</td>
<td>X</td>
<td>040</td>
<td>Faherty</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Mar. 6 We</td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>23:00</td>
<td>E,D</td>
<td>X</td>
<td>053</td>
<td>Polishook</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>23:00</td>
<td>05:40</td>
<td>E</td>
<td>X</td>
<td>058</td>
<td>Gaidos</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Mar. 7 Th</td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>06:00</td>
<td>E,D</td>
<td>X</td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
<td>JTR</td>
</tr>
<tr>
<td>Mar. 8 Fr</td>
<td>18:00</td>
<td>05:40</td>
<td>D</td>
<td>X</td>
<td>083</td>
<td>Marion</td>
<td>SpeX</td>
</tr>
<tr>
<td>Mar. 9 --</td>
<td>05:40</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>D</td>
<td>X</td>
<td>033</td>
<td>Landsman</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>Mar. 10 --</td>
<td>05:40</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>03:00</td>
<td>D,B</td>
<td>X</td>
<td>001</td>
<td>Grundy</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Mar. 11 Mo</td>
<td>03:00</td>
<td>06:00</td>
<td>D</td>
<td></td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
</tr>
<tr>
<td>18:00</td>
<td>23:59</td>
<td>B</td>
<td>X</td>
<td>027</td>
<td>Binzel</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Mar. 12 Tu</td>
<td>00:00</td>
<td>05:40</td>
<td>B</td>
<td>X</td>
<td>015</td>
<td>Tokunaga</td>
<td>SpeX/MORIS</td>
</tr>
<tr>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>B</td>
<td>X</td>
<td>015</td>
<td>Tokunaga</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Mar. 13 We</td>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>06:00</td>
<td>B,E</td>
<td>X</td>
<td>999</td>
<td>Engineering</td>
<td>NSFACAM2</td>
<td>MSC</td>
</tr>
<tr>
<td>Mar. 14 Th</td>
<td>18:00</td>
<td>06:00</td>
<td>E</td>
<td></td>
<td>999</td>
<td>Engineering</td>
<td>NSFACAM2</td>
</tr>
<tr>
<td>Mar. 15 Fr</td>
<td>18:00</td>
<td>05:40</td>
<td>E</td>
<td>X</td>
<td>023</td>
<td>Marion</td>
<td>SpeX/MORIS</td>
</tr>
<tr>
<td>Mar. 16 --</td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>E,C</td>
<td>X</td>
<td>023</td>
<td>Glikman</td>
<td>SpeX/MORIS</td>
<td>JTR</td>
</tr>
<tr>
<td>Mar. 17 --</td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>C</td>
<td>X</td>
<td>023</td>
<td>Glikman</td>
<td>SpeX/MORIS</td>
<td>JTR</td>
</tr>
<tr>
<td>Mar. 18 Mo</td>
<td>05:40</td>
<td>06:00</td>
<td>C</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>C</td>
<td>X</td>
<td>023</td>
<td>Glikman</td>
<td>SpeX/MORIS</td>
<td>JTR</td>
</tr>
<tr>
<td>Mar. 19 Tu</td>
<td>05:40</td>
<td>06:00</td>
<td>C</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>C,B</td>
<td></td>
<td>072</td>
<td>Saito</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Mar. 20 We</td>
<td>05:40</td>
<td>06:00</td>
<td>C</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>05:40</td>
<td>B</td>
<td>X</td>
<td>072</td>
<td>Saito</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Mar. 21 Th</td>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
</tbody>
</table>
**MARCH 2013  IRTF TELESCOPE SCHEDULE:**

<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar. 22 Fr</td>
<td>18:00</td>
<td>05:40</td>
<td>B</td>
<td>072 Saito</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td>Mar. 23 --</td>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td>Mar. 24 --</td>
<td>18:00</td>
<td>06:00</td>
<td>E</td>
<td>072 Saito</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td>Mar. 25 Mo</td>
<td>02:30</td>
<td>06:00</td>
<td>E</td>
<td>097 Prato</td>
<td>CSHELL</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Mar. 26 Tu</td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Mar. 27 We</td>
<td>05:40</td>
<td>06:00</td>
<td>E</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>JTR</td>
<td>Service Obs.</td>
</tr>
<tr>
<td>Mar. 28 Th</td>
<td>05:40</td>
<td>06:00</td>
<td>B</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td>Mar. 29 Fr</td>
<td>07:00</td>
<td>14:00</td>
<td>C</td>
<td>062 Villanueva</td>
<td>CSHELL</td>
<td>SJB</td>
<td>Daylight Obs.</td>
</tr>
<tr>
<td>Mar. 30 --</td>
<td>07:00</td>
<td>14:00</td>
<td>C</td>
<td>062 Villanueva</td>
<td>CSHELL</td>
<td>SJB</td>
<td>Daylight Obs.</td>
</tr>
<tr>
<td>Mar. 31 --</td>
<td>08:00</td>
<td>16:00</td>
<td>D</td>
<td>071 DiSanti</td>
<td>CSHELL</td>
<td>SJB</td>
<td>Daylight Obs.</td>
</tr>
</tbody>
</table>

**Additional Observers**

- Will Grundy
- Alan Tokunaga, Richard Binzel, Francesca DeMeo, Andrew Rivkin, Mirel Birlan, Schelte J. Bus, David Polishook, Nicholas Moskovitz
- Glenn Orton, Padma Yanamandra-Fisher, Leigh Fletcher, Kevin Baines
- Glenn Orton, Padma Yanamandra-Fisher, Leigh Fletcher, Kevin Baines, Ricardo Hueso, Agustin Sanchez-Lavega, Santiago Perez-Hoyos
- Eilat Glikman, Mark Lacy, Tanya Urrutia, Meg Urry
- Richard Binzel, Alan Tokunaga, Francesca DeMeo, Andrew Rivkin, Mirel Birlan, Schelte J. Bus, David Polishook, Nicholas Moskovitz
- Zoe Landsman, Humberto Campins, Julia de Leon, Noemi Pinilla-Alonso, Javier Licandro
- Paul Hardersen, Amy Mainzer, Vishnu Reddy
- Amanda Gulbis, Michael Person, Amanda Bosh, Carlos Zuluaga
- Jacqueline Faherty, Sebastian Lepine, Andrew West, Saurav Dhital
- David Polishook, Francesca DeMeo
- Emily Schaller, Henry Roe, Michael Brown
- Eric Gaidos, Andrew W. Mann
- Geronimo Villanueva, Michael Mumma, Michael DiSanti, Boncho Bonev, Karen Magee-Sauer, Erika Gibb
- Yuriko Saito, Tomoki Morokuma, Toshihiro Kawaguchi, Masatoshi Imanishi, Yosuke Minowa, Nagisa Oi, Nozomu Kawakatsu, Kenta Matsuoka, Takeo Minezaki, Tohru Nagao
- Bin Yang, David Jewitt
- Howie Marion, Eric Hsiao, Ryan Foley, Robert Kirshner, Peter Challis

**March 2013**
### IRTF Telescope Schedule:

<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>090</td>
<td></td>
<td></td>
<td></td>
<td>Stephen Wolters, Paul Weissman, Sam Duddy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>093</td>
<td></td>
<td></td>
<td></td>
<td>Sarah Schmidt, Saurav Dhital, Andrew West, Adam Burgasser</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>097</td>
<td></td>
<td></td>
<td></td>
<td>Lisa Prato, Dary Ruiz, Viviana Rosero</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HST Date</td>
<td>HST Time</td>
<td>TO</td>
<td>Remote</td>
<td>Prog and PI</td>
<td>Instrument</td>
<td>SA</td>
<td>Comments</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>----</td>
<td>--------</td>
<td>-------------</td>
<td>------------</td>
<td>----</td>
<td>----------</td>
</tr>
<tr>
<td>Apr. 1 Mo</td>
<td>00:00</td>
<td>E</td>
<td>X</td>
<td>058</td>
<td>Gaidos</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>03:00</td>
<td>E</td>
<td>X</td>
<td>074</td>
<td>Helton</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>08:00</td>
<td>D</td>
<td>X</td>
<td>071</td>
<td>DiSanti</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>058</td>
<td>Gaidos</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>20:30</td>
<td>E</td>
<td>X</td>
<td>090</td>
<td>Wolters</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Apr. 2 Tu</td>
<td>02:30</td>
<td>E</td>
<td>X</td>
<td>099</td>
<td>Engineering</td>
<td>TBD</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>08:00</td>
<td>D</td>
<td>X</td>
<td>042</td>
<td>Dello Russo</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>082</td>
<td>Best</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Apr. 3 We</td>
<td>00:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>082</td>
<td>Best</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>08:00</td>
<td>D</td>
<td>X</td>
<td>042</td>
<td>Dello Russo</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>066</td>
<td>Liu</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Apr. 4 Th</td>
<td>00:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>066</td>
<td>Liu</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>08:00</td>
<td>C</td>
<td>X</td>
<td>042</td>
<td>Dello Russo</td>
<td>CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>066</td>
<td>Liu</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Apr. 5 Fr</td>
<td>00:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>066</td>
<td>Liu</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>07:00</td>
<td>C</td>
<td>X</td>
<td>029</td>
<td>Woodward</td>
<td>BASS</td>
<td>ATT</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>046</td>
<td>Bochanski</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Apr. 6 --</td>
<td>00:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>046</td>
<td>Bochanski</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>07:00</td>
<td>C</td>
<td>X</td>
<td>029</td>
<td>Woodward</td>
<td>BASS</td>
<td>ATT</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>046</td>
<td>Bochanski</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Apr. 7 --</td>
<td>00:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>046</td>
<td>Bochanski</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>07:00</td>
<td>C</td>
<td>X</td>
<td>029</td>
<td>Woodward</td>
<td>BASS</td>
<td>ATT</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>065</td>
<td>Trilling</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Apr. 8 Mo</td>
<td>00:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>065</td>
<td>Trilling</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>23:00</td>
<td>D</td>
<td>X</td>
<td>024</td>
<td>Howell</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>Apr. 9 Tu</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>065</td>
<td>Trilling</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Apr. 10 We</td>
<td>00:00</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>065</td>
<td>Trilling</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>065</td>
<td>Trilling</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Apr. 11 Th</td>
<td>00:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>065</td>
<td>Trilling</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>027</td>
<td>Binzel</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Apr. 12 Fr</td>
<td>00:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>027</td>
<td>Binzel</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>027</td>
<td>Binzel</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Apr. 13 --</td>
<td>00:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>027</td>
<td>Binzel</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
<td>JTR</td>
</tr>
</tbody>
</table>
### IRTF Telescope Schedule:

#### April 2013

<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr. 14</td>
<td>23:00</td>
<td>B</td>
<td>X</td>
<td>024 Howell</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Apr. 15</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>051 Marchis</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:00</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td></td>
<td>999 Engineering</td>
<td>NSFAM2</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>JTR</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>23:50</td>
<td>B</td>
<td>X</td>
<td>016 Aller</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Apr. 16</td>
<td>02:40</td>
<td>D</td>
<td></td>
<td>999 Engineering</td>
<td>NSFAM2</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>JTR</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>051</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>016 Aller</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>D</td>
<td>X</td>
<td>017 Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:50</td>
<td>D</td>
<td>X</td>
<td>016 Aller</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Apr. 17</td>
<td>02:40</td>
<td>E</td>
<td></td>
<td>058 Gaidos</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>054</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
<td></td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td></td>
<td>017 Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>E</td>
<td></td>
<td>00:00</td>
<td>Prato</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>E</td>
<td></td>
<td>097</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 20</td>
<td>02:40</td>
<td>D</td>
<td></td>
<td>00:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:00</td>
<td>D</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td></td>
<td>054</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 21</td>
<td>02:40</td>
<td>E</td>
<td></td>
<td>017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td></td>
<td>00:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 22</td>
<td>02:40</td>
<td>D</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>D</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 23</td>
<td>02:40</td>
<td>D</td>
<td></td>
<td>00:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>D</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 24</td>
<td>02:40</td>
<td>D</td>
<td></td>
<td>00:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 25</td>
<td>02:40</td>
<td>D</td>
<td></td>
<td>00:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>D</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 26</td>
<td>02:40</td>
<td>D</td>
<td></td>
<td>00:00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>D</td>
<td></td>
<td>099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 27</td>
<td>02:40</td>
<td>D, E</td>
<td></td>
<td>003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 28</td>
<td>02:40</td>
<td>D, E</td>
<td></td>
<td>003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 29</td>
<td>02:40</td>
<td>D, E</td>
<td></td>
<td>003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 30</td>
<td>02:40</td>
<td>D, E</td>
<td></td>
<td>003</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Additional Observers

April 2013

003 James Sinclair, Brigette Hesman, Donald Jennings, Pedro Sada, Allen Lunsford, Robert Boyle, Gordon L. Bjoraker, Paul N. Romani
016 Kimberly Aller, Adam Kraus, Michael Liu
017 Tom Stallard, Steve Miller, Henrik Melin, James O'Donoghue, Sarah Badman
021 Glenn Orton, Padma Yanamandra-Fisher, Leigh Fletcher, Kevin Baines, Ricardo Hueso, Agustin Sanchez-Lavega, Santiago Perez-Hoyos
024 Ellen Howell, Ronald Vervack, Yan Fernandez
027 Richard Binzel, Alan Tokunaga, Francesca DeMeo, Andrew Rivkin, Mirel Birlan, Schelte J. Bus, David Polishook, Nicholas Moskovitz
<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>029</td>
<td></td>
<td></td>
<td></td>
<td>Chick Woodward, Ray Russell, Diane Wooden, Michael Kelley, David Harker, Michael Sitko</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>042</td>
<td></td>
<td></td>
<td></td>
<td>Neil Dello Russo, Ronald Vervack, Harold Weaver, Carey Lisse, Hideyo Kawakita, Hitomi Kobayashi, Walter Harris, Anita Cochran, Dominique Bockele-Morvan, Nicolas Biver, Jacques Crovisier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>046</td>
<td></td>
<td></td>
<td></td>
<td>John Bochanski, Beth Willman, Andrew West</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>051</td>
<td></td>
<td></td>
<td></td>
<td>Franck Marchis, Jesus Emilio Enriquez, Josh Emery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>054</td>
<td></td>
<td></td>
<td></td>
<td>Emily Schaller, Henry Roe, Michael Brown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>058</td>
<td></td>
<td></td>
<td></td>
<td>Eric Gaidos, Andrew W. Mann</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>065</td>
<td></td>
<td></td>
<td></td>
<td>David Schaller, Amanda Gulbis, Andy Rivkin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>066</td>
<td></td>
<td></td>
<td></td>
<td>Michael Liu, Eugene Magnier, Niall Deacon, Kimberly Aller, Will Best</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>074</td>
<td></td>
<td></td>
<td></td>
<td>L. Andrew Helton, William Vacca, Nye Evans, Charles Woodward, Frederick Walter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>082</td>
<td></td>
<td></td>
<td></td>
<td>William M. J. Best, Michael C. Liu, Eugene A. Magnier, Kimberly M. Aller, Niall R. Deacon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>090</td>
<td></td>
<td></td>
<td></td>
<td>Stephen Wolters, Paul Weissman, Sam Duddy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>097</td>
<td></td>
<td></td>
<td></td>
<td>Lisa Prato, Dary Ruiz, Viviana Rosero</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>099</td>
<td></td>
<td></td>
<td></td>
<td>Adam Burgasser, Sarah Schmidt, Andrew West, John Bochanski, Suzanne Hawley</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HST Date</td>
<td>HST Time</td>
<td>TO</td>
<td>Remote</td>
<td>Prog and PI</td>
<td>Instrument</td>
<td>SA</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
<td>-----</td>
<td>--------</td>
<td>-------------</td>
<td>---------------------</td>
<td>----</td>
<td>--------------</td>
</tr>
<tr>
<td>May. 1 We</td>
<td>18:00</td>
<td>23:59</td>
<td>B</td>
<td>X</td>
<td>083 Marion</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>May. 2 Th</td>
<td>00:00</td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>083 Marion</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>20:30</td>
<td>B</td>
<td>D</td>
<td>X 047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>20:30</td>
<td>03:00</td>
<td>B</td>
<td>X</td>
<td>020 Orton</td>
<td>SpeX/NSFCAM2</td>
<td>MSC</td>
</tr>
<tr>
<td>May. 3 Fr</td>
<td>03:00</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>20:30</td>
<td>B,D</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>20:30</td>
<td>03:00</td>
<td>B</td>
<td>X</td>
<td>020 Orton</td>
<td>SpeX/NSFCAM2</td>
<td>MSC</td>
</tr>
<tr>
<td>May. 4 --</td>
<td>03:00</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>046 Bochanski</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>May. 5 --</td>
<td>18:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>046 Bochanski</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>May. 6 Mo</td>
<td>18:00</td>
<td>22:00</td>
<td>D,E</td>
<td></td>
<td>999 Engineering</td>
<td>TBD</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>22:00</td>
<td>02:00</td>
<td>D</td>
<td>X</td>
<td>037 Roberts</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 7 Tu</td>
<td>02:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>058 Gaidos</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:30</td>
<td>E</td>
<td></td>
<td>017 Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>02:30</td>
<td>E</td>
<td>X</td>
<td>097 Prato</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>May. 8 We</td>
<td>02:30</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>024 Howell</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>E</td>
<td>X</td>
<td>051 Marchis</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 9 Th</td>
<td>00:00</td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>051 Marchis</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>E,B</td>
<td>X</td>
<td>040 Faherty</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 10 Fr</td>
<td>00:00</td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>040 Faherty</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>E,B</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 11 --</td>
<td>00:00</td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>B</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 12 --</td>
<td>00:00</td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>20:00</td>
<td>B</td>
<td>X</td>
<td>040 Faherty</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>20:00</td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>090 Wolters</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 13 Mo</td>
<td>00:20</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>089 Sellgren</td>
<td>NSFCAM2</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>20:00</td>
<td>D</td>
<td>X</td>
<td>040 Faherty</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>20:00</td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>090 Wolters</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 14 Tu</td>
<td>00:20</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>089 Sellgren</td>
<td>NSFCAM2</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>22:00</td>
<td>D</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>22:00</td>
<td>02:30</td>
<td>D</td>
<td>X</td>
<td>010 Sitko</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>May. 15 We</td>
<td>02:30</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>22:00</td>
<td>D</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>22:00</td>
<td>02:30</td>
<td>D</td>
<td>X</td>
<td>010 Sitko</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>May. 16 Th</td>
<td>02:30</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>D</td>
<td>X</td>
<td>002 DeMeo</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>May. 17 Fr</td>
<td>00:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>017 Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>23:59</td>
<td>B</td>
<td>999 Engineering</td>
<td>TBD</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>May. 18 --</td>
<td>00:00</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>017 Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
</tr>
</tbody>
</table>
### MAY 2013 IRTF TELESCOPE SCHEDULE:

<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 19</td>
<td>22:00</td>
<td>B</td>
<td>017</td>
<td>Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>B</td>
<td>059</td>
<td>Cabrera</td>
<td>CSHELL</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>May 20</td>
<td>23:30</td>
<td>B</td>
<td>017</td>
<td>Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>02:30</td>
<td>B</td>
<td>097</td>
<td>Prato</td>
<td>CSHELL</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>012</td>
<td>Olkin</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>May 22</td>
<td>06:00</td>
<td>D</td>
<td>017</td>
<td>Stallard</td>
<td>SpeX/CSHELL</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>May 23</td>
<td>21:30</td>
<td>D</td>
<td>059</td>
<td>Cabrera</td>
<td>CSHELL</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>May 24</td>
<td>23:59</td>
<td>D,C</td>
<td>077</td>
<td>Terrien</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td>May 25</td>
<td>00:20</td>
<td>D</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td>May 26</td>
<td>00:20</td>
<td>C</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>C</td>
<td>077</td>
<td>Terrien</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:59</td>
<td>C</td>
<td>077</td>
<td>Terrien</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td>May 27</td>
<td>00:20</td>
<td>C</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>C</td>
<td>077</td>
<td>Terrien</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:59</td>
<td>C,B</td>
<td>077</td>
<td>Terrien</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td>May 28</td>
<td>00:20</td>
<td>C</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>C</td>
<td>077</td>
<td>Terrien</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:59</td>
<td>B</td>
<td>024</td>
<td>Howell</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>May 29</td>
<td>00:20</td>
<td>B</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>MSC</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>B</td>
<td>077</td>
<td>Terrien</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:59</td>
<td>B</td>
<td>024</td>
<td>Howell</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>May 30</td>
<td>03:00</td>
<td>B</td>
<td>074</td>
<td>Helton</td>
<td>SpeX</td>
<td>MSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>B</td>
<td>047</td>
<td>Mann</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>23:59</td>
<td>B,D</td>
<td>018</td>
<td>Fieber-Beyer</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>May 31</td>
<td>00:20</td>
<td>B</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>B</td>
<td>018</td>
<td>Fieber-Beyer</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21:00</td>
<td>D</td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>01:00</td>
<td>D</td>
<td>039</td>
<td>Gulbis</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Observers

002 Francesca DeMeo, Richard Binzel, David Polishook, Benoit Carry
010 Michael Sitko, Ray Russell, Misato Fukagawa, Carol Grady, Jeremy Swearingen, Arne A. Henden, Jun Hashimoto, Michel Cure
012 Cathy Olkin, Will Grundy, Eliot Young, Leslie Young, Marc Buie
015 Alan Tokunaga, Richard Binzel, Francesca DeMeo, Andrew Rivkin, Mirel Birlan, Schelte J. Bus, David Polishook, Nicholas Moskovitz
017 Tom Stallard, Steve Miller, Henrik Melin, James O'Donoghue, Sarah Badman
018 Sherry Fieber-Beyer, Mike Gaffey
020 Glenn Orton, Padma Yanamandra-Fisher, Leigh Fletcher, Kevin Baines
024 Ellen Howell, Ronald Vervack, Yan Fernandez
037 Rachel Roberts, Sherry Fieber-Beyer, Michael Gaffey
039 Amanda Gulbis, Michael Person, Amanda Bosh, Carlos Zuluaga
040 Jacqueline Faherty, Sebastian Lepine, Andrew West, Saurav Dhital

### May 2013
<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>046</td>
<td></td>
<td></td>
<td></td>
<td>John Bochanski, Beth Willman, Andrew West</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>047</td>
<td></td>
<td></td>
<td></td>
<td>Andrew Mann, Eric Gaidos, John Brewer, Sebastien Lepine, Kimberly Aller, Niall Deacon, Mike Liu, Eugene Magnier</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>051</td>
<td></td>
<td></td>
<td></td>
<td>Franck Marchis, Jesus Emilio Enriquez, Josh Emery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>054</td>
<td></td>
<td></td>
<td></td>
<td>Emily Schaller, Henry Roe, Michael Brown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>058</td>
<td></td>
<td></td>
<td></td>
<td>Eric Gaidos, Andrew W. Mann</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>059</td>
<td></td>
<td></td>
<td></td>
<td>Nicole Cabrera, Russel White, Cassy Davison, Xavier Delfosse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>074</td>
<td></td>
<td></td>
<td></td>
<td>L. Andrew Helton, William Vacca, Nye Evans, Charles Woodward, Frederick Walter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>077</td>
<td></td>
<td></td>
<td></td>
<td>Ryan Terrien, Suvrath Mahadevan, Chad Bender, Rohit Deshpande, Larry Ramsey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>083</td>
<td></td>
<td></td>
<td></td>
<td>Howie Marion, Eric Hsiao, Ryan Foley, Robert Kirshner, Peter Challis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>089</td>
<td></td>
<td></td>
<td></td>
<td>Kris Sellgren, Deokkeun An, Solange Ramirez</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>090</td>
<td></td>
<td></td>
<td></td>
<td>Stephen Wolters, Paul Weissman, Sam Duddy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>097</td>
<td></td>
<td></td>
<td></td>
<td>Lisa Prato, Dary Ruiz, Viviana Rosero</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HST Date</td>
<td>HST Time</td>
<td>TO</td>
<td>Remote</td>
<td>Prog and PI</td>
<td>Instrument</td>
<td>SA</td>
<td>Comments</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>----</td>
<td>--------</td>
<td>-------------</td>
<td>-----------------</td>
<td>----</td>
<td>----------------</td>
</tr>
<tr>
<td>Jun. 1</td>
<td>01:00</td>
<td>D</td>
<td>X</td>
<td>012 Olkin</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>024 Howell</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22:00</td>
<td>D</td>
<td>X</td>
<td>052 Moskovitz</td>
<td>SpeX/MORIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>00:00</td>
<td>D</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 2</td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>052 Moskovitz</td>
<td>SpeX/MORIS</td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>041 Jones</td>
<td>NSFCAM2/Pol</td>
<td></td>
<td></td>
<td>MSC</td>
</tr>
<tr>
<td>Jun. 3</td>
<td>18:00</td>
<td>D</td>
<td>041 Jones</td>
<td>NSFCAM2/Pol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 4</td>
<td>18:00</td>
<td>E</td>
<td></td>
<td>041 Jones</td>
<td>NSFCAM2/Pol</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 5</td>
<td>18:00</td>
<td>E,B</td>
<td>X</td>
<td>067 Kellogg</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 6</td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>067 Kellogg</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 7</td>
<td>00:00</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>067 Kellogg</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 8</td>
<td>01:00</td>
<td>B</td>
<td>X</td>
<td>052 Moskovitz</td>
<td>SpeX/MORIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B,D</td>
<td>X</td>
<td>081 Johns-Krull</td>
<td>CSHELL</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 9</td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>081 Johns-Krull</td>
<td>CSHELL</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 10</td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>081 Johns-Krull</td>
<td>CSHELL</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 11</td>
<td>18:00</td>
<td>D,E</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 12</td>
<td>00:00</td>
<td>D</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 13</td>
<td>00:00</td>
<td>E</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>015 Tokunaga</td>
<td>SpeX/MORIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>03:00</td>
<td>E</td>
<td>X</td>
<td>012 Olkin</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>099 Engineering</td>
<td>NSFCAM2</td>
<td></td>
<td></td>
<td>MSC</td>
</tr>
<tr>
<td>Jun. 14</td>
<td>18:00</td>
<td>E,B</td>
<td>X</td>
<td>097 Prato</td>
<td>CSHELL</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>23:45</td>
<td>E</td>
<td>X</td>
<td>024 Howell</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 15</td>
<td>18:00</td>
<td>B</td>
<td>099 Engineering</td>
<td>TBD</td>
<td></td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>B</td>
<td>X</td>
<td>059 Cabrera</td>
<td>CSHELL</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 16</td>
<td>18:00</td>
<td>B</td>
<td>099 Engineering</td>
<td>TBD</td>
<td></td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>21:30</td>
<td>B</td>
<td>X</td>
<td>006 Sitko</td>
<td>SpeX</td>
<td></td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>B</td>
<td>X</td>
<td>059 Cabrera</td>
<td>CSHELL</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 17</td>
<td>18:00</td>
<td>B,D</td>
<td>X</td>
<td>037 Roberts</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 18</td>
<td>02:00</td>
<td>B</td>
<td>X</td>
<td>024 Howell</td>
<td>SpeX</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>019 Luhman</td>
<td>SpeX</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 19</td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:40</td>
<td>D</td>
<td>X</td>
<td>087 Shara</td>
<td>SpeX</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>019 Luhman</td>
<td>SpeX</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 20</td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>00:40</td>
<td>D</td>
<td>X</td>
<td>087 Shara</td>
<td>SpeX</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D,E</td>
<td>X</td>
<td>019 Luhman</td>
<td>SpeX</td>
<td></td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 21</td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td></td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>00:40</td>
<td>D</td>
<td>X</td>
<td>087 Shara</td>
<td>SpeX</td>
<td></td>
<td>JTR</td>
</tr>
</tbody>
</table>
## IRTF Telescope Schedule:

**JUNE 2013**

<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun. 22</td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>019</td>
<td>Luhman</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR Service Obs.</td>
</tr>
<tr>
<td></td>
<td>00:40</td>
<td>E</td>
<td>X</td>
<td>087</td>
<td>Shara</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>E</td>
<td>X</td>
<td>059</td>
<td>Cabrera</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 23</td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>999</td>
<td>Engineering</td>
<td>TBD</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>23:30</td>
<td>E</td>
<td>X</td>
<td>059</td>
<td>Cabrera</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 24</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>032</td>
<td>Rivkin</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Mo</td>
<td>21:00</td>
<td>B</td>
<td>X</td>
<td>060</td>
<td>Nedelcu</td>
<td>SpeX/MORIS</td>
<td>MSC</td>
</tr>
<tr>
<td>Jun. 25</td>
<td>02:00</td>
<td>B</td>
<td>X</td>
<td>032</td>
<td>Rivkin</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Tu</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>020</td>
<td>Orton</td>
<td>SpeX/NSFCAM2</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>00:20</td>
<td>B</td>
<td>X</td>
<td>012</td>
<td>Olkin</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Jun. 26</td>
<td>02:00</td>
<td>B</td>
<td>X</td>
<td>032</td>
<td>Rivkin</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>We</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>020</td>
<td>Orton</td>
<td>SpeX/NSFCAM2</td>
<td>MSC</td>
</tr>
<tr>
<td></td>
<td>00:40</td>
<td>B</td>
<td>X</td>
<td>012</td>
<td>Olkin</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Jun. 27</td>
<td>02:00</td>
<td>B</td>
<td>X</td>
<td>032</td>
<td>Rivkin</td>
<td>SpeX</td>
<td>MSC</td>
</tr>
<tr>
<td>Th</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>C</td>
<td></td>
<td>998</td>
<td>Engineering</td>
<td>NSFCAM2</td>
<td>MSC</td>
</tr>
<tr>
<td>Jun. 28</td>
<td>18:00</td>
<td>C</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR Service Obs.</td>
</tr>
<tr>
<td>Fr</td>
<td>06:00</td>
<td>C</td>
<td></td>
<td>997</td>
<td>Jackson</td>
<td>SpeX/MORIS</td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 29</td>
<td>18:00</td>
<td>C</td>
<td>X</td>
<td>047</td>
<td>Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>02:00</td>
<td>C</td>
<td>X</td>
<td>012</td>
<td>Olkin</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jun. 30</td>
<td>02:00</td>
<td>C</td>
<td>X</td>
<td>047</td>
<td>Mann</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR Service Obs.</td>
</tr>
<tr>
<td></td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>999</td>
<td>Engineering</td>
<td>NSFCAM2</td>
<td>JTR</td>
</tr>
</tbody>
</table>

### Additional Observers

006 Michael Sitko, Ray Russell, Jeremy Swearingen, Carol Grady, Arne Henden, Michel Cure, Misato Fukagawa, Bruce Woodgate
012 Cathy Olkin, Will Grundy, Eliot Young, Leslie Young, Marc Buie
015 Alan Tokunaga, Richard Binzel, Francesca DeMeo, Andrew Rivkin, Mirel Birlan, Schelte J. Bus, David Polishook, Nicholas Moskovitz
019 Kevin Luhman, Eric Mamajek
020 Glenn Orton, Padma Yanamamandra-Fisher, Leigh Fletcher, Kevin Baines
024 Ellen Howell, Ronald Vervack, Yan Fernandez
028 Andrew Rivkin, Josh Emery, Eric Volquardsen
037 Rachel Roberts, Sherry Fieber-Beyer, Michael Gaffey
041 Terry Jones, Micaela Bagley
047 Andrew Mann, Eric Gaidos, John Brewer, Sebastien Lepine, Kimberly Aller, Niall Deacon, Mike Liu, Eugene Magnier
052 Nicholas Moskovitz, Vishnu Reddy, Paul Abell, Lucy Lin, Josh Emery
054 Emily Schaller, Henry Roe, Michael Brown
059 Nicole Cabrera, Russel White, Cassy Davison, Xavier Delfosse
060 Dan Alin Nedelcu, Mirel Birlan, Marcel Popescu
067 Kendra Kellogg, Stanimir Metchev, J. Davy Kirkpatrick, John Good, G. Bruce Berriman
081 Christopher Johns-Krull, Wei Chen
087 Michael Shara, Graham Kanarek, Jackie Faherty, David Zurek, Orsola De Marco
097 Lisa Prato, Dary Ruiz, Viviana Rosero
<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul. 1 Mo</td>
<td>18:00</td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>083</td>
<td>Marion</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 2 Tu</td>
<td>18:00</td>
<td>23:00</td>
<td>E,B</td>
<td>X</td>
<td>030</td>
<td>Crossfield</td>
<td>SpeX</td>
</tr>
<tr>
<td>23:00</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>031</td>
<td>Crossfield</td>
<td>SpeX/MORIS</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 3 We</td>
<td>18:00</td>
<td>06:00</td>
<td>B</td>
<td></td>
<td>999</td>
<td>Engineering</td>
<td>NSFCAM2</td>
</tr>
<tr>
<td>Jul. 4 Th</td>
<td>18:00</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>073</td>
<td>Yang</td>
<td>SpeX</td>
</tr>
<tr>
<td>Jul. 5 Fr</td>
<td>18:00</td>
<td>18:20</td>
<td>B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>B</td>
<td></td>
<td>028</td>
<td>Walsh</td>
<td>SpeX/MORIS</td>
<td>MSC</td>
</tr>
<tr>
<td>Jul. 6 --</td>
<td>18:00</td>
<td>18:20</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>D</td>
<td></td>
<td>028</td>
<td>Walsh</td>
<td>SpeX/MORIS</td>
<td>MSC</td>
</tr>
<tr>
<td>Jul. 7 --</td>
<td>18:00</td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>022</td>
<td>Simon</td>
<td>SpeX/CSHELL</td>
</tr>
<tr>
<td>Jul. 8 Mo</td>
<td>00:20</td>
<td>06:00</td>
<td>D</td>
<td></td>
<td>028</td>
<td>Walsh</td>
<td>SpeX/MORIS</td>
</tr>
<tr>
<td>18:00</td>
<td>00:20</td>
<td>D</td>
<td>X</td>
<td>022</td>
<td>Simon</td>
<td>SpeX/CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 9 Tu</td>
<td>00:20</td>
<td>06:00</td>
<td>D</td>
<td></td>
<td>028</td>
<td>Walsh</td>
<td>SpeX/MORIS</td>
</tr>
<tr>
<td>18:00</td>
<td>22:00</td>
<td>D</td>
<td>X</td>
<td>097</td>
<td>Prato</td>
<td>CSHELL</td>
<td>JTR</td>
</tr>
<tr>
<td>22:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>024</td>
<td>Howell</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 10 We</td>
<td>18:00</td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>22:00</td>
<td>E</td>
<td>X</td>
<td>015</td>
<td>Tokunaga</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>22:00</td>
<td>23:59</td>
<td>E</td>
<td>X</td>
<td>027</td>
<td>Binzel</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Jul. 11 Th</td>
<td>00:00</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>015</td>
<td>Tokunaga</td>
<td>SpeX/MORIS</td>
</tr>
<tr>
<td>18:00</td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>082</td>
<td>Best</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 12 Fr</td>
<td>18:00</td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>04:00</td>
<td>E</td>
<td>X</td>
<td>082</td>
<td>Best</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 13 --</td>
<td>04:00</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>056</td>
<td>Young</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>066</td>
<td>Liu</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 14 --</td>
<td>18:00</td>
<td>18:20</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>033</td>
<td>Landsman</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>Jul. 15 Mo</td>
<td>18:00</td>
<td>18:20</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>22:00</td>
<td>D</td>
<td>X</td>
<td>010</td>
<td>Sitko</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>22:00</td>
<td>23:59</td>
<td>D</td>
<td>X</td>
<td>006</td>
<td>Sitko</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 16 Tu</td>
<td>00:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>093</td>
<td>Schmidt</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>18:20</td>
<td>D</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>18:20</td>
<td>23:59</td>
<td>D</td>
<td>X</td>
<td>010</td>
<td>Sitko</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 17 We</td>
<td>00:00</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>093</td>
<td>Schmidt</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:00</td>
<td>18:20</td>
<td>D,E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>18:20</td>
<td>01:30</td>
<td>D</td>
<td>X</td>
<td>002</td>
<td>DeMeo</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Jul. 18 Th</td>
<td>01:30</td>
<td>06:00</td>
<td>D</td>
<td>X</td>
<td>039</td>
<td>Gulbis</td>
<td>SpeX/MORIS</td>
</tr>
<tr>
<td>18:00</td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>002</td>
<td>DeMeo</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
</tr>
<tr>
<td>Jul. 19 Fr</td>
<td>18:00</td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>057</td>
<td>Ho</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
<tr>
<td>Jul. 20 --</td>
<td>18:00</td>
<td>18:20</td>
<td>E,B</td>
<td>X</td>
<td>054</td>
<td>Schaller</td>
<td>SpeX</td>
</tr>
<tr>
<td>18:20</td>
<td>06:00</td>
<td>E</td>
<td>X</td>
<td>032</td>
<td>Rivkin</td>
<td>SpeX</td>
<td>SJB</td>
</tr>
<tr>
<td>HST Date</td>
<td>HST Time</td>
<td>TO</td>
<td>Remote</td>
<td>Prog and PI</td>
<td>Instrument</td>
<td>SA</td>
<td>Comments</td>
</tr>
<tr>
<td>------------</td>
<td>-----------</td>
<td>----</td>
<td>--------</td>
<td>-------------</td>
<td>--------------</td>
<td>----</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Jul. 21</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>B</td>
<td>X</td>
<td>032 Rivkin</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Jul. 22 Mo</td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>B</td>
<td>X</td>
<td>032 Rivkin</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Jul. 23 Tu</td>
<td>04:00</td>
<td>B</td>
<td>X</td>
<td>056 Young</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>B</td>
<td>X</td>
<td>028 Walsh</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Jul. 24 We</td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>D</td>
<td>X</td>
<td>028 Walsh</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Jul. 25 Th</td>
<td>04:00</td>
<td>D</td>
<td>X</td>
<td>056 Young</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>999 Engineering</td>
<td>TBD</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Jul. 26 Fr</td>
<td>00:00</td>
<td>D</td>
<td>X</td>
<td>037 Roberts</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>D</td>
<td>X</td>
<td>047 Mann</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>21:00</td>
<td>D</td>
<td>X</td>
<td>012 Olkin</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Jul. 27</td>
<td>00:00</td>
<td>D</td>
<td>X</td>
<td>999 Engineering</td>
<td>TBD</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>048 Polishook</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Jul. 28</td>
<td>04:00</td>
<td>E</td>
<td>X</td>
<td>056 Young</td>
<td>SpeX</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>E</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>E</td>
<td>X</td>
<td>048 Polishook</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Jul. 29 Mo</td>
<td>18:00</td>
<td>E,B</td>
<td>X</td>
<td>999 Engineering</td>
<td>TBD</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td>Jul. 30 Tu</td>
<td>06:30</td>
<td>C</td>
<td>X</td>
<td>021 Orton</td>
<td>SpeX/NSFCAM2</td>
<td>SJB</td>
<td>Daytime Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>B</td>
<td>X</td>
<td>070 McCollum</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
<td></td>
</tr>
<tr>
<td>Jul. 31 We</td>
<td>00:25</td>
<td>B</td>
<td>X</td>
<td>055 Gagne</td>
<td>SpeX</td>
<td>JTR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>06:30</td>
<td>C</td>
<td>X</td>
<td>021 Orton</td>
<td>SpeX/NSFCAM2</td>
<td>SJB</td>
<td>Daytime Obs.</td>
</tr>
<tr>
<td></td>
<td>18:00</td>
<td>B</td>
<td>X</td>
<td>054 Schaller</td>
<td>SpeX</td>
<td>SJB</td>
<td>Service Obs.</td>
</tr>
<tr>
<td></td>
<td>18:20</td>
<td>B</td>
<td>X</td>
<td>070 McCollum</td>
<td>SpeX/MORIS</td>
<td>SJB</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Observers**

002 Francesca DeMeo, Richard Binzel, David Polishook, Benoit Carry
006 Michael Sitko, Ray Russell, Jeremy Swearingen, Carol Grady, Arne Henden, Michel Cure, Misato Fukagawa, Bruce Woodgate
010 Michael Sitko, Ray Russell, Misato Fukagawa, Carol Grady, Jeremy Swearingen, Arne A. Henden, Jun Hashimoto, Michel Cure
012 Cathy Olkin, Will Grundy, Eliot Young, Leslie Young, Marc Buie
015 Alan Tokunaga, Richard Binzel, Francesca DeMeo, Andrew Rivkin, Mirel Birlan, Schelte J. Bus, David Polishook, Nicholas Moskovitz
021 Glenn Orton, Padma Yanamandra-Fisher, Leigh Fletcher, Kevin Baines, Ricardo Hueso, Agustin Sanchez-Lavega, Santiago Perez-Hoyos
022 Michal Simon, Lisa Prato
024 Ellen Howell, Ronald Vervack, Yian Fernandez
027 Richard Binzel, Alan Tokunaga, Francesca DeMeo, Andrew Rivkin, Mirel Birlan, Schelte J. Bus, David Polishook, Nicholas Moskovitz
028 Kevin Walsh, Francesca DeMeo, Marco Delbo
030 Ian Crossfield
031 Ian Crossfield, Carolina Bergfors, Wolfgang Brandner, Maria Lenius
032 Andrew Rivkin, Josh Emery, Eric Volquardsen
033 Zoe Landsman, Humberto Campins, Julia de Leon, Noemi Pinilla-Alonso, Javier Licandro
037 Rachel Roberts, Sherry Fiebr-Beyer, Michael Gaffey
039 Amanda Gulbis, Michael Person, Amanda Bosh, Carlos Zuluaga
047 Andrew Mann, Eric Gaizos, John Brewer, Sebastien Lepine, Kimberly Aller, Niall Deacon, Mike Liu, Eugene Magnier
048 David Polishook, Nicholas Moskovitz

**July 2013**
<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>054</td>
<td></td>
<td></td>
<td></td>
<td>Emily Schaller, Henry Roe, Michael Brown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>055</td>
<td></td>
<td></td>
<td></td>
<td>Jonathan Gagne, Rene Doyon, David Lafreniere, Lison Malo, Etienne Artigau, Marie-Eve Naud</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>056</td>
<td></td>
<td></td>
<td></td>
<td>Leslie Young, William Grundy, Eliot Young</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>057</td>
<td></td>
<td></td>
<td></td>
<td>I-Ting Ho, Lisa Kewley</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>066</td>
<td></td>
<td></td>
<td></td>
<td>Michael Liu, Eugene Magnier, Niall Deacon, Kimberly Aller, Will Best</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>070</td>
<td></td>
<td></td>
<td></td>
<td>Bruce McCollum, Frederick Bruhweiler, Seppo Laine, Lee Rottler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>073</td>
<td></td>
<td></td>
<td></td>
<td>Bin Yang, David Jewitt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>082</td>
<td></td>
<td></td>
<td></td>
<td>William M. J. Best, Michael C. Liu, Eugene A. Magnier, Kimberly M. Aller, Niall R. Deacon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>083</td>
<td></td>
<td></td>
<td></td>
<td>Howie Marion, Eric Hsiao, Ryan Foley, Robert Kirshner, Peter Challis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>093</td>
<td></td>
<td></td>
<td></td>
<td>Sarah Schmidt, Saurav Dhital, Andrew West, Adam Burgasser</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>097</td>
<td></td>
<td></td>
<td></td>
<td>Lisa Prato, Dary Ruiz, Viviana Rosero</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Additional Observers

055  Jonathan Gagne, Rene Doyon, David Lafreniere, Lison Malo, Etienne Artigau, Marie-Eve Naud

---

**HST date (Hawaii Standard Time) is listed for the first program starting after midnight (00:00) each day. Any date ambiguities should be resolved by the fact that programs are listed in strict time sequence. If you have any questions regarding the schedule or if you notice corrections that need to be made, please email William Walters at the following address: walters@ifa.hawaii.edu**

Any instrument changes will be made with the time allocated. For example, if an instrument change is required at 11PM, the instrument change will start with the program scheduled at 11PM. The time to change instruments is factored into the time awarded.

All observing must occur within the listed dates and times and only with the personnel listed on this schedule. Any changes to the dates, times, and observing personnel must be **approved** by the Telescope Director Alan Tokunaga at least 1 month in advance; please submit requests earlier.

Support at the telescope by staff astronomers is only guaranteed for the first night of each observer's first run with an IRTF facility instrument as indicated by "1st Night" in the Comments column above. Please confirm this verbally with your support astronomer.

Please note your Observing Requirements Form (ORF) by the date indicated, approximately 1 month in advance of your run. Please note that IRTF facility instrumentation is provided as documented on our web site (http://irtfweb.ifa.hawaii.edu); modifications for individuals are usually not possible unless agreed upon by IRTF staff adequately in advance.

Driving IRTF vehicles is a privilege granted to observers with valid driver's license. Please read and obey our vehicle policy. This includes using IRTF vehicles only for official travel between Hilo, Hale Pohaku, and the summit at the times you have indicated. All changes to your vehicle usage must be communicated to and approved by Mr. Lars Bergknut, the IRTF Superintendent.

**SA (Support Astronomer)**

ATT = Alan Tokunaga
JTR = John Rayner
MSC = Michael Connelley
SJB = Schelte (Bobby) Bus
Team = JTR, SJB, MSC

---

<table>
<thead>
<tr>
<th>HST Date</th>
<th>HST Time</th>
<th>TO</th>
<th>Remote</th>
<th>Prog and PI</th>
<th>Instrument</th>
<th>SA</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 1 Th</td>
<td>00:25</td>
<td>06:00</td>
<td>B</td>
<td>X</td>
<td>055 Gagne</td>
<td>SpeX</td>
<td>JTR</td>
</tr>
</tbody>
</table>