

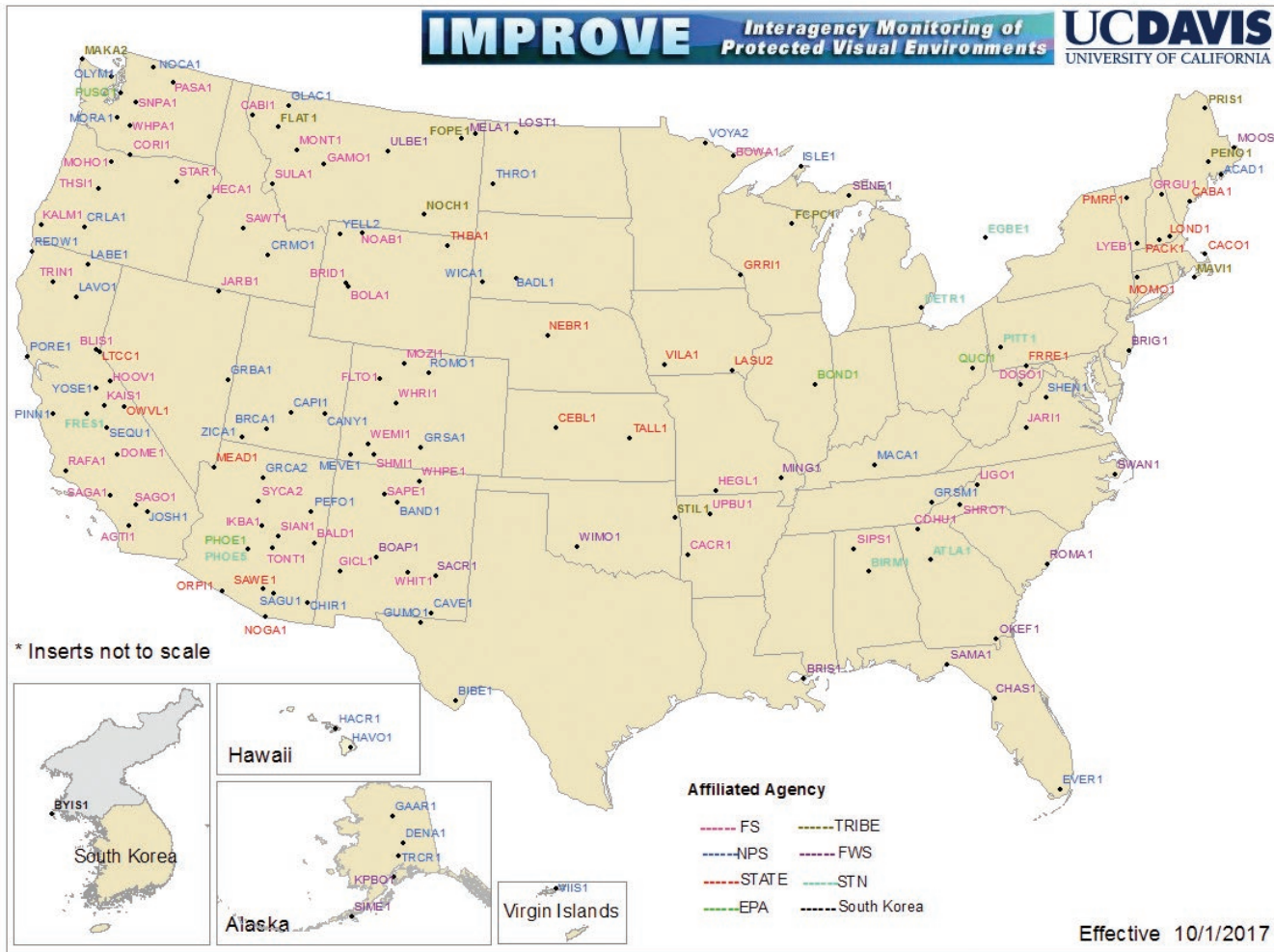


# IMPROVE

Interagency Monitoring of Protected Visual Environments

## 2018 CALENDAR





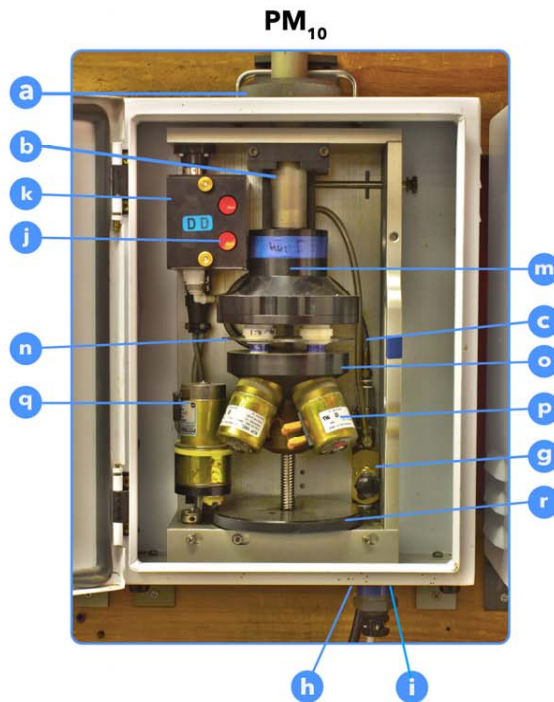
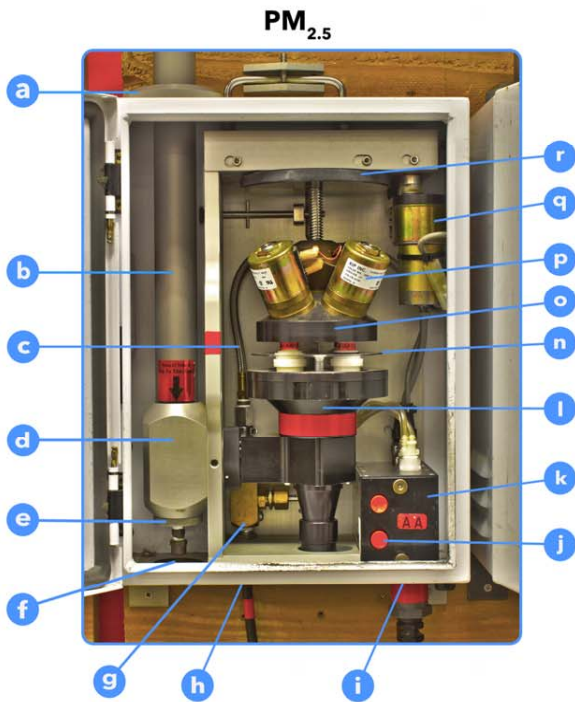
IMPROVE is a collaborative association of state, tribal, and federal agencies, and international partners. US Environmental Protection Agency is the primary funding source, with contracting and research support from the National Park Service. The Air Quality Group (AQG) at the University of California, Davis provides field maintenance and operator support, sample handling, elemental analysis, and data processing; Research Triangle Institute (RTI) performs ions analysis, and Desert Research Institute (DRI) performs carbon analysis. IMPROVE data and documentation are available

from the website <http://vista.cira.colostate.edu/improve/> maintained by the Cooperative Institute for Research in the Atmosphere (CIRA).

For questions or problems with optical or scene monitoring equipment, contact Mark Tigges, Air Resource Specialists, For Collins, CO at 970-224-9300. For questions or problems with air sampler controllers, filters or flow checks, contact Air Quality Group, UC Davis at 530-752-1123, or visit <http://airquality.crocker.ucdavis.edu/improve/resources-operators/>



# MODULE SCHEMATIC



- a. stack compression sleeve
- b. inlet stack
- c. braided hose
- d. inlet tee
- e. tee plug
- f. black cap
- g. flow control valve
- h. pump hose connector
- i. module cable connector
- j. motor control buttons
- k. electronics box (E-Box)
- l. cyclone
- m. funnel
- n. cartridge with 4 filter cassettes
- o. solenoid manifold
- p. solenoid valve (4)
- q. motor assembly to raise solenoid manifold
- r. handwheel to raise solenoid manifold

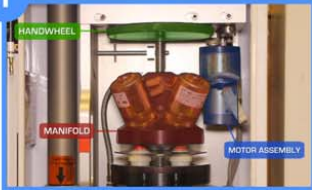


# QUICK REFERENCE GUIDE



## Disengaging Manifold Motor to Manually Raise/Lower the Manifold

1



Locate the motor assembly in the module.

2



Separate the motor assembly from the coupling sliding the assembly down. Then pivot it towards to the hand wheel.

2.a



A gentle wiggle may be required to slide the assembly up or down.

3



For the A, B, and C modules spin the hand wheel to the left to raise the manifold.

4



Spin the hand wheel to the right to lower the manifold.

4.a



The spinning direction to raise and lower the manifold is opposite for the D module.

5



If the motor starts to work again it can be reengaged with the hand wheel. Pivot the motor assembly back to its original location.

6



Rotate the hand wheel until the coupling snaps into alignment.

## Electronics-Box Replacement

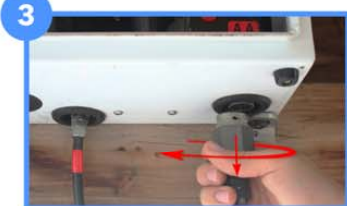
(For A,B, and C modules. For the D module skip steps 3 and 9)



1 Disconnect the Orifice (ORI) and Cyclone (CYC) hoses by depressing the metal clasp and pulling on the hose.



2 Disconnect the grey cable located on top of the box by turning the metal collar counter-clockwise.



3 Disconnect the grey module cable at the bottom of the module, by turning the connector body counter-clockwise.



4 Loosen the brass knobs located on the black electronics box.



5 Remove old electronics box and insert the new box.



6 Tighten the brass knobs.



7 Re-connect grey cable on the top of the box.



*(line up the key and keyway when connecting the electronic connectors)*



8 Re-connect the hoses to the electronics box.



9 Re-connect the bottom grey module cable.

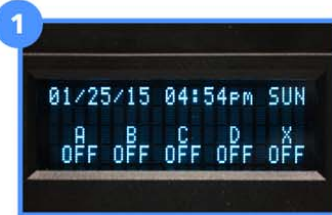


# QUICK REFERENCE GUIDE

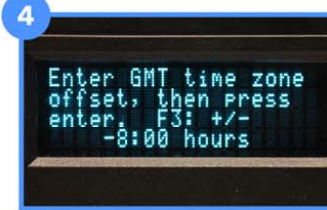


## Change Date / Time on Controller

(If the current time on your site is off by more than 5 minutes please call the Air Quality Group.)



1 Press **'Enter'** on the controller keypad to view the *Main Menu*.



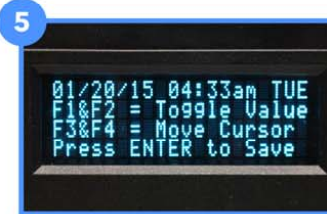
4 If necessary change the *GMT time zone offset* using **'F1'** and **'F2'** to increase and decrease hours.

Press **'F3'** to select plus or minus.

Press **'Enter'** to continue.



2 Press **'F2'** for *Change Date & Time*

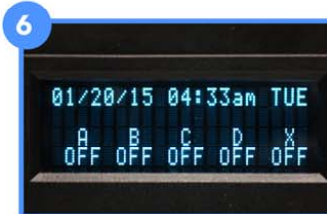


5 Use **'F1'** and **'F2'** to set the current month. Then press **'F4'** to move onto the placeholder value for day, year, and time.

Press **'F3'** to select previous placeholder values and **'Enter'** to save.



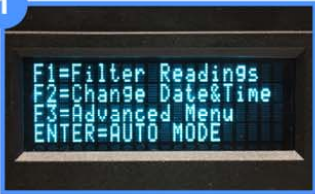
3 Look up your time zone on the reference map and note the corresponding GMT offset in **Bold**.



6 Press **'Enter'** once more to return to *Auto Mode*

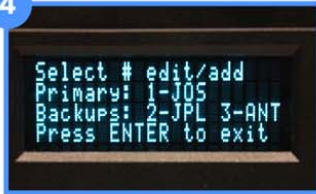
## Change Operator Initials on Controller

1



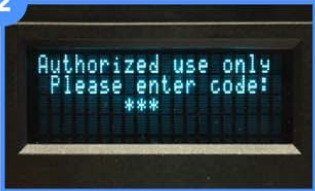
Press **'Enter'** on the controller keypad to view the *Main Menu*.

4



Select which operator initial to edit or add. (1, 2, or 3)

2



Press **'F3'** for *Advanced Menu* and type the code **'1123'**.

*(Do not press 'enter' after putting in the code as this will return to the Main Menu)*

5



Use **'F1'** and **'F2'** to set the first character. Press **'F4'** to select the next character placeholder and adjust accordingly with **'F1'** and **'F2'**.

Press **'Enter'** to save.

3

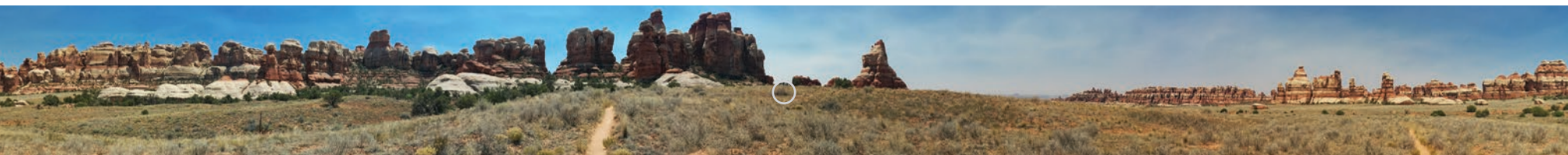


Press **'F3'** to select *Operator Initials*

6



Press **'Enter'** twice more to return to *Auto Mode*.



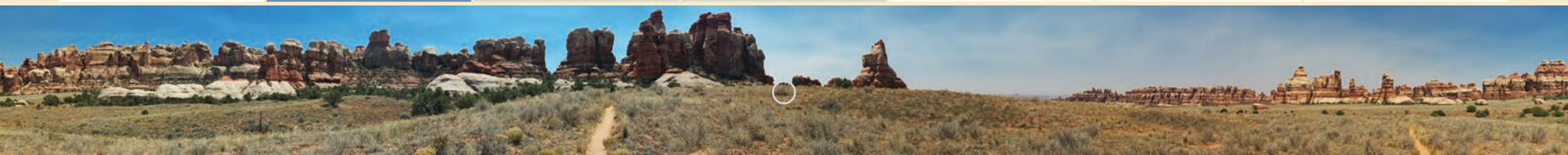


GRIZZLY LAKE: Trinity Alps Wilderness, CA (TRIN1) *Josh Grant*



# JANUARY 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																																		
31	<b>New Year's Day 1</b>  <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3  <b>2</b>  <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	<b>3</b>  <i>Alternate Sample Change Day</i>	<b>4</b>  <i>Alternate Sample Change Day</i>	<b>5</b>  IMPROVE Particle Sampling Day	<b>6</b>																																																																																																		
<b>7</b>	<b>8</b>  IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1  <b>9</b>  Change IMPROVE Particle cartridges	<b>10</b>  <i>Alternate Sample Change Day</i>	<b>11</b>  IMPROVE Particle Sampling Day	<b>12</b>	<b>13</b>																																																																																																		
<b>14</b>  IMPROVE Particle Sampling Day	<b>Martin Luther King, Jr. Day 15</b>  <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2  <b>16</b>  Change IMPROVE Particle cartridges	<b>17</b>  IMPROVE Particle Sampling Day	<b>18</b>	<b>19</b>	<b>20</b>  IMPROVE Particle Sampling Day																																																																																																		
<b>21</b>  <i>Alternate Sample Change Day</i>	<b>22</b>  <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3  <b>23</b>  <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	<b>24</b>  <i>Alternate Sample Change Day</i>	<b>25</b>  <i>Alternate Sample Change Day</i>	<b>26</b>  IMPROVE Particle Sampling Day	<b>27</b>																																																																																																		
<b>28</b>	<b>29</b>  IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1  <b>30</b>  Change IMPROVE Particle cartridges	<b>31</b>  <i>Alternate Sample Change Day</i>	<b>1</b>  IMPROVE Particle Sampling Day	<table border="1"> <thead> <tr> <th colspan="7">DECEMBER 2017</th> <th colspan="7">FEBRUARY 2018</th> </tr> <tr> <th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th> <th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th> </tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td> <td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td> </tr> <tr> <td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td> <td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td> <td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td> </tr> <tr> <td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td> <td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td> </tr> <tr> <td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td> <td>25</td><td>26</td><td>27</td><td>28</td><td></td><td></td><td></td> </tr> </tbody> </table>		DECEMBER 2017							FEBRUARY 2018							S	M	T	W	T	F	S	S	M	T	W	T	F	S						1	2					1	2	3	3	4	5	6	7	8	9	4	5	6	7	8	9	10	10	11	12	13	14	15	16	11	12	13	14	15	16	17	17	18	19	20	21	22	23	18	19	20	21	22	23	24	24	25	26	27	28	29	30	25	26	27	28			
DECEMBER 2017							FEBRUARY 2018																																																																																																	
S	M	T	W	T	F	S	S	M	T	W	T	F	S																																																																																											
					1	2					1	2	3																																																																																											
3	4	5	6	7	8	9	4	5	6	7	8	9	10																																																																																											
10	11	12	13	14	15	16	11	12	13	14	15	16	17																																																																																											
17	18	19	20	21	22	23	18	19	20	21	22	23	24																																																																																											
24	25	26	27	28	29	30	25	26	27	28																																																																																														

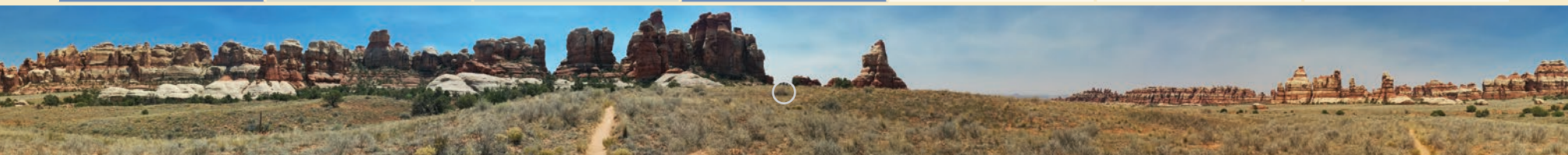




YELLOWSTONE RIVER: Yellowstone, WY (YELL1) *Josh Grant*

# FEBRUARY 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																					
28	29	3-2-2 Week 3 2-3-2 Week 1 30	31	1	2	3																																																																																					
	IMPROVE Particle Sampling Day	Change IMPROVE Particle cartridges	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																							
4	5	3-2-2 Week 1 2-3-2 Week 2 6	7	8	9	10																																																																																					
IMPROVE Particle Sampling Day	Alternate Sample Change Day	Change IMPROVE Particle cartridges	IMPROVE Particle Sampling Day			IMPROVE Particle Sampling Day																																																																																					
11	12	3-2-2 Week 2 2-3-2 Week 3 13	14	15	16	17																																																																																					
Alternate Sample Change Day	Alternate Sample Change Day	Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	Alternate Sample Change Day	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																						
18	President's Day 19	3-2-2 Week 3 2-3-2 Week 1 20	21	22	23	24																																																																																					
	IMPROVE Particle Sampling Day	Change IMPROVE Particle cartridges	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																							
25	26	3-2-2 Week 1 2-3-2 Week 2 27	28	1	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>JANUARY 2018</p> <table border="1"> <thead> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> </thead> <tbody> <tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td></tr> </tbody> </table> </div> <div style="text-align: center;"> <p>MARCH 2018</p> <table border="1"> <thead> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr> </tbody> </table> </div> </div>		S	M	T	W	T	F	S		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
S	M	T	W	T	F	S																																																																																					
	1	2	3	4	5	6																																																																																					
7	8	9	10	11	12	13																																																																																					
14	15	16	17	18	19	20																																																																																					
21	22	23	24	25	26	27																																																																																					
28	29	30	31																																																																																								
S	M	T	W	T	F	S																																																																																					
					1	2	3																																																																																				
4	5	6	7	8	9	10																																																																																					
11	12	13	14	15	16	17																																																																																					
18	19	20	21	22	23	24																																																																																					
25	26	27	28	29	30	31																																																																																					
IMPROVE Particle Sampling Day	Alternate Sample Change Day	Change IMPROVE Particle cartridges	IMPROVE Particle Sampling Day																																																																																								

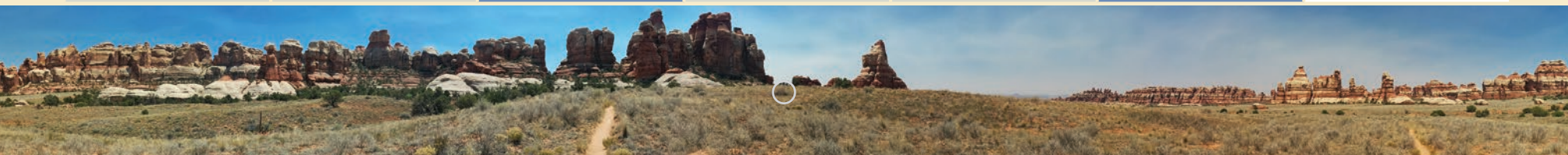




GILA RIVER: Gila Cliffs National Monument, NM (GICL1) *Josh Grant*

# MARCH 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<p>FEBRUARY 2018</p> <p>S M T W T F S</p> <p>1 2 3</p> <p>4 5 6 7 8 9 10</p> <p>11 12 13 14 15 16 17</p> <p>18 19 20 21 22 23 24</p> <p>25 26 27 28</p>	<p>APRIL 2018</p> <p>S M T W T F S</p> <p>1 2 3 4 5 6 7</p> <p>8 9 10 11 12 13 14</p> <p>15 16 17 18 19 20 21</p> <p>22 23 24 25 26 27 28</p> <p>29 30</p>	<p>3-2-2 Week 1 <b>27</b></p> <p>2-3-2 Week 2</p> <p>Change IMPROVE Particle cartridges</p>	<p><b>28</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>1</b></p>	<p><b>2</b></p>	<p><b>3</b></p> <p>IMPROVE Particle Sampling Day</p>
<p><b>4</b></p> <p>Alternate Sample Change Day</p>	<p><b>5</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 2 <b>6</b></p> <p>2-3-2 Week 3</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p><b>7</b></p> <p>Alternate Sample Change Day</p>	<p><b>8</b></p> <p>Alternate Sample Change Day</p>	<p><b>9</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>10</b></p>
<p><b>11</b></p>	<p><b>12</b></p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 <b>13</b></p> <p>2-3-2 Week 1</p> <p>Change IMPROVE Particle cartridges</p>	<p><b>14</b></p> <p>Alternate Sample Change Day</p>	<p><b>15</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>16</b></p>	<p><b>17</b></p>
<p><b>18</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>19</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 <b>20</b></p> <p>2-3-2 Week 2</p> <p>Change IMPROVE Particle cartridges</p>	<p><b>21</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>22</b></p>	<p><b>23</b></p>	<p><b>24</b></p> <p>IMPROVE Particle Sampling Day</p>
<p><b>25</b></p> <p>Alternate Sample Change Day</p>	<p><b>26</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 2 <b>27</b></p> <p>2-3-2 Week 3</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p><b>28</b></p> <p>Alternate Sample Change Day</p>	<p><b>29</b></p> <p>Alternate Sample Change Day</p>	<p><b>30</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>31</b></p>

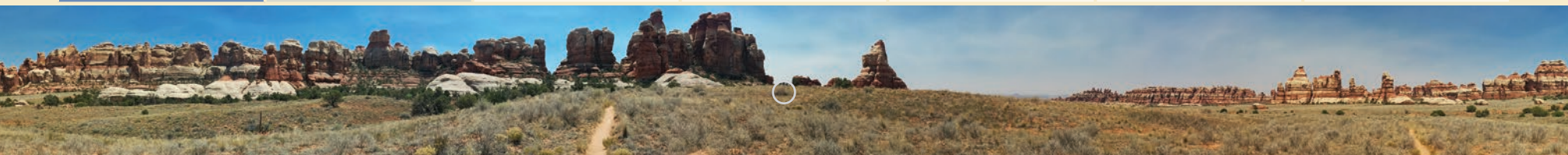




BRYCE CANYON: Bryce Canyon, UT (BRCA1) *Josh Grant*

# APRIL 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																				
1	2 IMPROVE Particle Sampling Day	3 3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	4 <i>Alternate Sample Change Day</i>	5 IMPROVE Particle Sampling Day	6	7																																																																																				
8 IMPROVE Particle Sampling Day	9 <i>Alternate Sample Change Day</i>	10 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	11 IMPROVE Particle Sampling Day	12	13	14 IMPROVE Particle Sampling Day																																																																																				
15 <i>Alternate Sample Change Day</i>	16 <i>Alternate Sample Change Day</i>	17 3-2-2 Week 2 2-3-2 Week 3 <b>Special cartridge change: move cassette 3 from old cartridge to new.</b> IMPROVE Particle Sampling Day	18 <i>Alternate Sample Change Day</i>	19 <i>Alternate Sample Change Day</i>	20 IMPROVE Particle Sampling Day	21																																																																																				
22	23 IMPROVE Particle Sampling Day	24 3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	25 <i>Alternate Sample Change Day</i>	26 IMPROVE Particle Sampling Day	27	28																																																																																				
29 IMPROVE Particle Sampling Day	30 <i>Alternate Sample Change Day</i>	1 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	2 IMPROVE Particle Sampling Day	3	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>MARCH 2018</p> <table border="1"> <thead> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td></tr> <tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr> <tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr> <tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr> <tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr> </tbody> </table> </div> <div style="text-align: center;"> <p>MAY 2018</p> <table border="1"> <thead> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> </thead> <tbody> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td></tr> </tbody> </table> </div> </div>		S	M	T	W	T	F	S					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	S	M	T	W	T	F	S			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
S	M	T	W	T	F	S																																																																																				
				1	2	3																																																																																				
4	5	6	7	8	9	10																																																																																				
11	12	13	14	15	16	17																																																																																				
18	19	20	21	22	23	24																																																																																				
25	26	27	28	29	30	31																																																																																				
S	M	T	W	T	F	S																																																																																				
		1	2	3	4	5																																																																																				
6	7	8	9	10	11	12																																																																																				
13	14	15	16	17	18	19																																																																																				
20	21	22	23	24	25	26																																																																																				
27	28	29	30	31																																																																																						



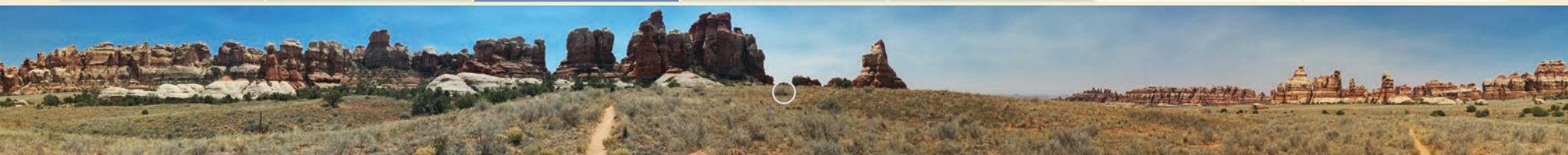


LOOKING GLASS FALLS: Shining Rock Wilderness, NC (SHRO1) *Josh Grant*



# MAY 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																				
29 IMPROVE Particle Sampling Day	30 <i>Alternate Sample Change Day</i>	1 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	2 IMPROVE Particle Sampling Day	3	4	5 IMPROVE Particle Sampling Day																																																																																				
6 <i>Alternate Sample Change Day</i>	7 <i>Alternate Sample Change Day</i>	8 3-2-2 Week 2 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	9 <i>Alternate Sample Change Day</i>	10 <i>Alternate Sample Change Day</i>	11 IMPROVE Particle Sampling Day	12																																																																																				
13	14 IMPROVE Particle Sampling Day	15 3-2-2 Week 3 2-3-2 Week 1 Change IMPROVE Particle cartridges	16 <i>Alternate Sample Change Day</i>	17 IMPROVE Particle Sampling Day	18	19																																																																																				
20 IMPROVE Particle Sampling Day	21 <i>Alternate Sample Change Day</i>	22 3-2-2 Week 1 2-3-2 Week 2 Change IMPROVE Particle cartridges	23 IMPROVE Particle Sampling Day	24	25	26 IMPROVE Particle Sampling Day																																																																																				
27 <i>Alternate Sample Change Day</i>	28 Memorial Day <i>Alternate Sample Change Day</i>	29 3-2-2 Week 2 2-3-2 Week 3 Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	30 <i>Alternate Sample Change Day</i>	31 <i>Alternate Sample Change Day</i>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>APRIL 2018</p> <table border="1"> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr><td>29</td><td>30</td><td></td><td></td><td></td><td></td><td></td></tr> </table> </div> <div style="text-align: center;"> <p>JUNE 2018</p> <table border="1"> <tr><th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1 2</td></tr> <tr><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td></tr> <tr><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td></tr> <tr><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td></tr> </table> </div> </div>		S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30						S	M	T	W	T	F	S							1 2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
S	M	T	W	T	F	S																																																																																				
1	2	3	4	5	6	7																																																																																				
8	9	10	11	12	13	14																																																																																				
15	16	17	18	19	20	21																																																																																				
22	23	24	25	26	27	28																																																																																				
29	30																																																																																									
S	M	T	W	T	F	S																																																																																				
						1 2																																																																																				
3	4	5	6	7	8	9																																																																																				
10	11	12	13	14	15	16																																																																																				
17	18	19	20	21	22	23																																																																																				
24	25	26	27	28	29	30																																																																																				

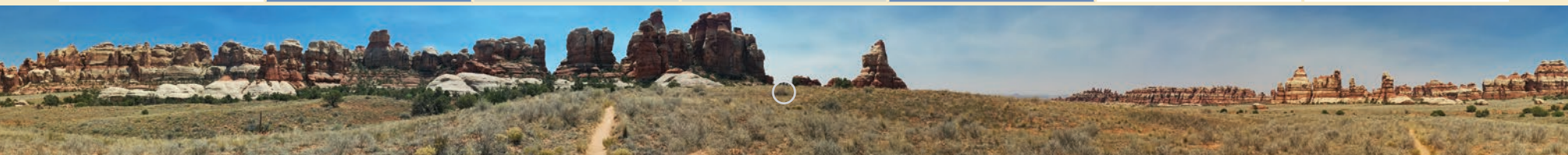




CASCADING CREEK: Great Smoky Mountains, TN (GRSM1) *Josh Grant*

# JUNE 2018

SUNDAY							MONDAY							TUESDAY							WEDNESDAY							THURSDAY							FRIDAY							SATURDAY																																																																																										
<p>MAY 2018</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr> <tr><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr> <tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr> <tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr> <tr><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td></tr> </table>							S	M	T	W	T	F	S			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			<p>JULY 2018</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td><td></td></tr> </table>							S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					<p>3-2-2 Week 2 <b>29</b> 2-3-2 Week 3</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>							<p><b>30</b></p> <p>Alternate Sample Change Day</p>							<p><b>31</b></p> <p>Alternate Sample Change Day</p>							<p><b>1</b></p> <p>IMPROVE Particle Sampling Day</p>							<p><b>2</b></p>						
S	M	T	W	T	F	S																																																																																																																														
		1	2	3	4	5																																																																																																																														
6	7	8	9	10	11	12																																																																																																																														
13	14	15	16	17	18	19																																																																																																																														
20	21	22	23	24	25	26																																																																																																																														
27	28	29	30	31																																																																																																																																
S	M	T	W	T	F	S																																																																																																																														
1	2	3	4	5	6	7																																																																																																																														
8	9	10	11	12	13	14																																																																																																																														
15	16	17	18	19	20	21																																																																																																																														
22	23	24	25	26	27	28																																																																																																																														
29	30	31																																																																																																																																		
<p><b>3</b></p>							<p><b>4</b></p> <p>IMPROVE Particle Sampling Day</p>							<p>3-2-2 Week 3 <b>5</b> 2-3-2 Week 1</p> <p>Change IMPROVE Particle cartridges</p>							<p><b>6</b></p> <p>Alternate Sample Change Day</p>							<p><b>7</b></p> <p>IMPROVE Particle Sampling Day</p>							<p><b>8</b></p>							<p><b>9</b></p>																																																																																										
<p><b>10</b></p> <p>IMPROVE Particle Sampling Day</p>							<p><b>11</b></p> <p>Alternate Sample Change Day</p>							<p>3-2-2 Week 1 <b>12</b> 2-3-2 Week 2</p> <p>Change IMPROVE Particle cartridges</p>							<p><b>13</b></p> <p>IMPROVE Particle Sampling Day</p>							<p><b>14</b></p>							<p><b>15</b></p>							<p><b>16</b></p> <p>IMPROVE Particle Sampling Day</p>																																																																																										
<p><b>17</b></p> <p>Alternate Sample Change Day</p>							<p><b>18</b></p> <p>Alternate Sample Change Day</p>							<p>3-2-2 Week 2 <b>19</b> 2-3-2 Week 3</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>							<p><b>20</b></p> <p>Alternate Sample Change Day</p>							<p><b>21</b></p> <p>Alternate Sample Change Day</p>							<p><b>22</b></p> <p>IMPROVE Particle Sampling Day</p>							<p><b>23</b></p>																																																																																										
<p><b>24</b></p>							<p><b>25</b></p> <p>IMPROVE Particle Sampling Day</p>							<p>3-2-2 Week 3 <b>26</b> 2-3-2 Week 1</p> <p>Change IMPROVE Particle cartridges</p>							<p><b>27</b></p> <p>Alternate Sample Change Day</p>							<p><b>28</b></p> <p>IMPROVE Particle Sampling Day</p>							<p><b>29</b></p>							<p><b>30</b></p>																																																																																										

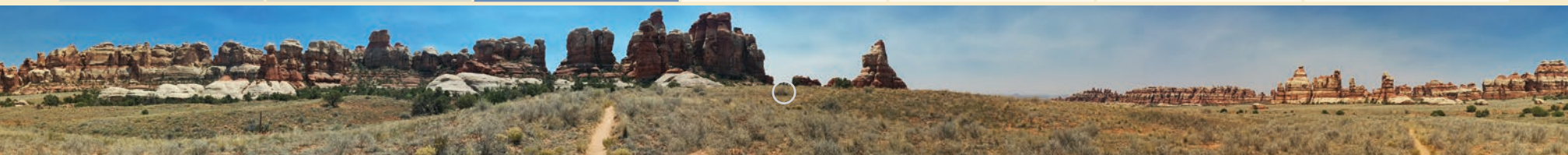




ABOVE ISLAND LAKE: Bridger Wilderness, WY (BRID1) *Scott Copeland*

# JULY 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																				
1 IMPROVE Particle Sampling Day	2 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 3 Change IMPROVE Particle cartridges	Independence Day 4 IMPROVE Particle Sampling Day	5	6	7 IMPROVE Particle Sampling Day																																																																																				
8 <i>Alternate Sample Change Day</i>	9 <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3 10 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	11 <i>Alternate Sample Change Day</i>	12 <i>Alternate Sample Change Day</i>	13 IMPROVE Particle Sampling Day	14																																																																																				
15	16 IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 17 Change IMPROVE Particle cartridges	18 <i>Alternate Sample Change Day</i>	19 IMPROVE Particle Sampling Day	20	21																																																																																				
22 IMPROVE Particle Sampling Day	23 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 24 Change IMPROVE Particle cartridges	25 IMPROVE Particle Sampling Day	26	27	28 IMPROVE Particle Sampling Day																																																																																				
29 <i>Alternate Sample Change Day</i>	30 <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3 31 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	1 <i>Alternate Sample Change Day</i>	2 <i>Alternate Sample Change Day</i>	<p>JUNE 2018</p> <table border="1"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> </tr> <tr> <td>10</td> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> </tr> <tr> <td>17</td> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> </tr> <tr> <td>24</td> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> </tr> </tbody> </table> <p>AUGUST 2018</p> <table border="1"> <thead> <tr> <th>S</th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>S</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> </tr> <tr> <td>11</td> <td>12</td> <td>13</td> <td>14</td> <td>15</td> <td>16</td> <td>17</td> </tr> <tr> <td>18</td> <td>19</td> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> </tr> <tr> <td>25</td> <td>26</td> <td>27</td> <td>28</td> <td>29</td> <td>30</td> <td>31</td> </tr> </tbody> </table>		S	M	T	W	T	F	S						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	S	M	T	W	T	F	S					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
S	M	T	W	T	F	S																																																																																				
					1	2																																																																																				
3	4	5	6	7	8	9																																																																																				
10	11	12	13	14	15	16																																																																																				
17	18	19	20	21	22	23																																																																																				
24	25	26	27	28	29	30																																																																																				
S	M	T	W	T	F	S																																																																																				
				1	2	3																																																																																				
4	5	6	7	8	9	10																																																																																				
11	12	13	14	15	16	17																																																																																				
18	19	20	21	22	23	24																																																																																				
25	26	27	28	29	30	31																																																																																				

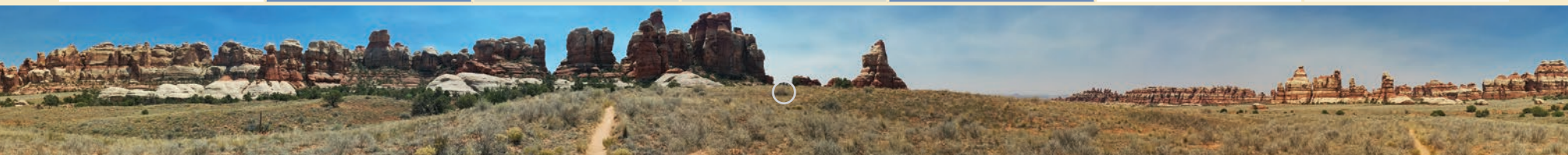




CHASSAHOWITZKA SWAMP: Chassahowitzka National Wildlife Refuge, FL (CHAS1) *Josh Grant*

# AUGUST 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																											
<p>JULY 2018</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr> <tr><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td></tr> <tr><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td></tr> <tr><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td></tr> <tr><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					<p>SEPTEMBER 2018</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30							<p>3-2-2 Week 2 <b>31</b> 2-3-2 Week 3</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p><b>1</b></p> <p>Alternate Sample Change Day</p>	<p><b>2</b></p> <p>Alternate Sample Change Day</p>	<p><b>3</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>4</b></p>
S	M	T	W	T	F	S																																																																																											
1	2	3	4	5	6	7																																																																																											
8	9	10	11	12	13	14																																																																																											
15	16	17	18	19	20	21																																																																																											
22	23	24	25	26	27	28																																																																																											
29	30	31																																																																																															
S	M	T	W	T	F	S																																																																																											
						1																																																																																											
2	3	4	5	6	7	8																																																																																											
9	10	11	12	13	14	15																																																																																											
16	17	18	19	20	21	22																																																																																											
23	24	25	26	27	28	29																																																																																											
30																																																																																																	
<p><b>5</b></p>	<p><b>6</b></p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 <b>7</b> 2-3-2 Week 1</p> <p>Change IMPROVE Particle cartridges</p>	<p><b>8</b></p> <p>Alternate Sample Change Day</p>	<p><b>9</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>10</b></p>	<p><b>11</b></p>																																																																																											
<p><b>12</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>13</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 <b>14</b> 2-3-2 Week 2</p> <p>Change IMPROVE Particle cartridges</p>	<p><b>15</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>16</b></p>	<p><b>17</b></p>	<p><b>18</b></p> <p>IMPROVE Particle Sampling Day</p>																																																																																											
<p><b>19</b></p> <p>Alternate Sample Change Day</p>	<p><b>20</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 2 <b>21</b> 2-3-2 Week 3</p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p><b>22</b></p> <p>Alternate Sample Change Day</p>	<p><b>23</b></p> <p>Alternate Sample Change Day</p>	<p><b>24</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>25</b></p>																																																																																											
<p><b>26</b></p>	<p><b>27</b></p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 <b>28</b> 2-3-2 Week 1</p> <p>Change IMPROVE Particle cartridges</p>	<p><b>29</b></p> <p>Alternate Sample Change Day</p>	<p><b>30</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>31</b></p>	<p><b>1</b></p>																																																																																											



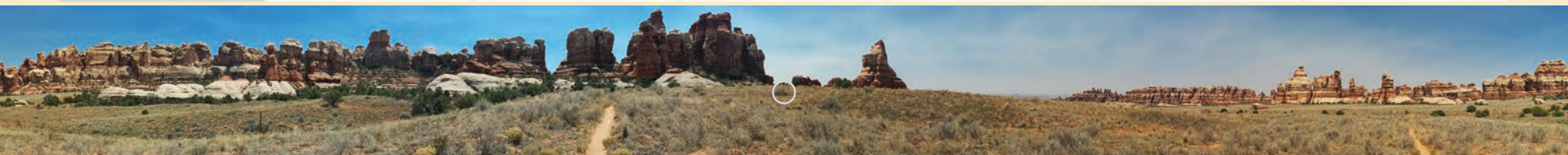


POPO AGIE FALLS: Wind River Country, WY (BOLA1) *Scott Copeland*



# SEPTEMBER 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																																		
26	27	3-2-2 Week 3 2-3-2 Week 1 28	29	30	31	1																																																																																																		
	IMPROVE Particle Sampling Day	Change IMPROVE Particle cartridges	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																																				
2	Labor Day 3	3-2-2 Week 1 2-3-2 Week 2 4	5	6	7	8																																																																																																		
IMPROVE Particle Sampling Day	Alternate Sample Change Day	Change IMPROVE Particle cartridges	IMPROVE Particle Sampling Day			IMPROVE Particle Sampling Day																																																																																																		
9	10	3-2-2 Week 2 2-3-2 Week 3 11	12	13	14	15																																																																																																		
Alternate Sample Change Day	Alternate Sample Change Day	Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	Alternate Sample Change Day	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																																			
16	17	3-2-2 Week 3 2-3-2 Week 1 18	19	20	21	22																																																																																																		
	IMPROVE Particle Sampling Day	Change IMPROVE Particle cartridges	Alternate Sample Change Day	IMPROVE Particle Sampling Day																																																																																																				
23	24	3-2-2 Week 1 2-3-2 Week 2 25	26	27	28	29																																																																																																		
IMPROVE Particle Sampling Day	Alternate Sample Change Day	Change IMPROVE Particle cartridges	IMPROVE Particle Sampling Day			IMPROVE Particle Sampling Day																																																																																																		
30	1	3-2-2 Week 2 2-3-2 Week 3 2	3	4	<table border="1"> <thead> <tr> <th colspan="7">AUGUST 2018</th> <th colspan="7">OCTOBER 2018</th> </tr> <tr> <th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th> <th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th> </tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td> <td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td> </tr> <tr> <td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td> <td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td> </tr> <tr> <td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td> <td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td> </tr> <tr> <td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td> <td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td> </tr> <tr> <td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td> <td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td> </tr> </tbody> </table>		AUGUST 2018							OCTOBER 2018							S	M	T	W	T	F	S	S	M	T	W	T	F	S				1	2	3	4		1	2	3	4	5	6	5	6	7	8	9	10	11	7	8	9	10	11	12	13	12	13	14	15	16	17	18	14	15	16	17	18	19	20	19	20	21	22	23	24	25	21	22	23	24	25	26	27	26	27	28	29	30	31		28	29	30	31			
AUGUST 2018							OCTOBER 2018																																																																																																	
S	M	T	W	T	F	S	S	M	T	W	T	F	S																																																																																											
			1	2	3	4		1	2	3	4	5	6																																																																																											
5	6	7	8	9	10	11	7	8	9	10	11	12	13																																																																																											
12	13	14	15	16	17	18	14	15	16	17	18	19	20																																																																																											
19	20	21	22	23	24	25	21	22	23	24	25	26	27																																																																																											
26	27	28	29	30	31		28	29	30	31																																																																																														
Alternate Sample Change Day	Alternate Sample Change Day	Special cartridge change: move cassette 3 from old cartridge to new. IMPROVE Particle Sampling Day	Alternate Sample Change Day	Alternate Sample Change Day																																																																																																				

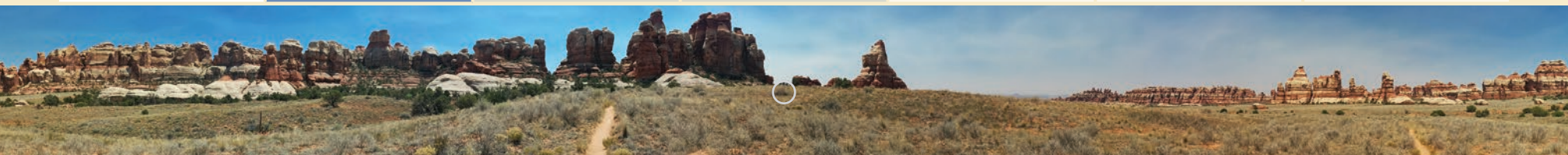




NORTH DAKOTA BADLANDS, Theodore Roosevelt National Park, ND (THRO1) *Josh Grant*

# OCTOBER 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
30 <i>Alternate Sample Change Day</i>	1 <i>Alternate Sample Change Day</i>	2 3-2-2 Week 2 2-3-2 Week 3  <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	3 <i>Alternate Sample Change Day</i>	4 <i>Alternate Sample Change Day</i>	5 IMPROVE Particle Sampling Day	6
7	8 Columbus Day  IMPROVE Particle Sampling Day	9 3-2-2 Week 3 2-3-2 Week 1  Change IMPROVE Particle cartridges	10 <i>Alternate Sample Change Day</i>	11 IMPROVE Particle Sampling Day	12	13
14 IMPROVE Particle Sampling Day	15 <i>Alternate Sample Change Day</i>	16 3-2-2 Week 1 2-3-2 Week 2  Change IMPROVE Particle cartridges	17 IMPROVE Particle Sampling Day	18	19	20 IMPROVE Particle Sampling Day
21 <i>Alternate Sample Change Day</i>	22 <i>Alternate Sample Change Day</i>	23 3-2-2 Week 2 2-3-2 Week 3  <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	24 <i>Alternate Sample Change Day</i>	25 <i>Alternate Sample Change Day</i>	26 IMPROVE Particle Sampling Day	27
28	29 IMPROVE Particle Sampling Day	30 3-2-2 Week 3 2-3-2 Week 1  Change IMPROVE Particle cartridges	31 <i>Alternate Sample Change Day</i>	1 IMPROVE Particle Sampling Day	SEPTEMBER 2018 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	
						NOVEMBER 2018 S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

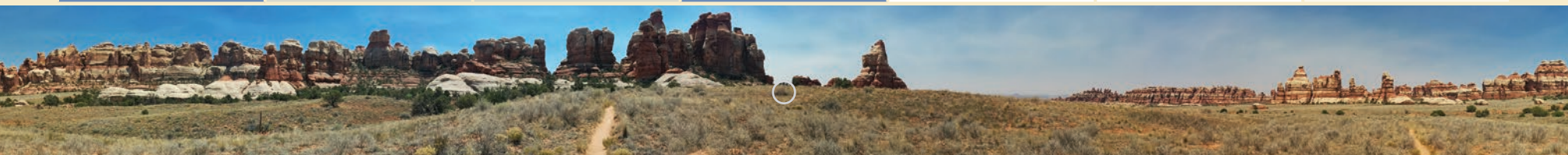




GRAND VIEW: Grand Canyon, AZ (GRCA1) *Josh Grant*

# NOVEMBER 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																											
<p>OCTOBER 2018</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr> <tr><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td></tr> <tr><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr> <tr><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td></tr> <tr><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				<p>DECEMBER 2018</p> <table border="1"> <tr><td>S</td><td>M</td><td>T</td><td>W</td><td>T</td><td>F</td><td>S</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></tr> <tr><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td></tr> <tr><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td></tr> <tr><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td></tr> <tr><td>23</td><td>24</td><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td></tr> <tr><td>30</td><td>31</td><td></td><td></td><td></td><td></td><td></td></tr> </table>	S	M	T	W	T	F	S							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31						<p>3-2-2 Week 3 2-3-2 Week 1</p> <p><b>30</b></p> <p>Change IMPROVE Particle cartridges</p>	<p><b>31</b></p> <p>Alternate Sample Change Day</p>	<p><b>1</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>2</b></p>	<p><b>3</b></p>
S	M	T	W	T	F	S																																																																																											
	1	2	3	4	5	6																																																																																											
7	8	9	10	11	12	13																																																																																											
14	15	16	17	18	19	20																																																																																											
21	22	23	24	25	26	27																																																																																											
28	29	30	31																																																																																														
S	M	T	W	T	F	S																																																																																											
						1																																																																																											
2	3	4	5	6	7	8																																																																																											
9	10	11	12	13	14	15																																																																																											
16	17	18	19	20	21	22																																																																																											
23	24	25	26	27	28	29																																																																																											
30	31																																																																																																
<p><b>4</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>5</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 2-3-2 Week 2</p> <p><b>6</b></p> <p>Change IMPROVE Particle cartridges</p>	<p><b>7</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>8</b></p>	<p><b>9</b></p>	<p><b>10</b></p> <p>IMPROVE Particle Sampling Day</p>																																																																																											
<p>Veterans Day</p> <p><b>11</b></p> <p>Alternate Sample Change Day</p>	<p><b>12</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 2 2-3-2 Week 3</p> <p><b>13</b></p> <p>Special cartridge change: move cassette 3 from old cartridge to new.</p> <p>IMPROVE Particle Sampling Day</p>	<p><b>14</b></p> <p>Alternate Sample Change Day</p>	<p><b>15</b></p> <p>Alternate Sample Change Day</p>	<p><b>16</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>17</b></p>																																																																																											
<p><b>18</b></p>	<p><b>19</b></p> <p>IMPROVE Particle Sampling Day</p>	<p>3-2-2 Week 3 2-3-2 Week 1</p> <p><b>20</b></p> <p>Change IMPROVE Particle cartridges</p>	<p><b>21</b></p> <p>Alternate Sample Change Day</p>	<p>Thanksgiving Day</p> <p><b>22</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>23</b></p>	<p><b>24</b></p>																																																																																											
<p><b>25</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>26</b></p> <p>Alternate Sample Change Day</p>	<p>3-2-2 Week 1 2-3-2 Week 2</p> <p><b>27</b></p> <p>Change IMPROVE Particle cartridges</p>	<p><b>28</b></p> <p>IMPROVE Particle Sampling Day</p>	<p><b>29</b></p>	<p><b>30</b></p>	<p><b>1</b></p> <p>IMPROVE Particle Sampling Day</p>																																																																																											

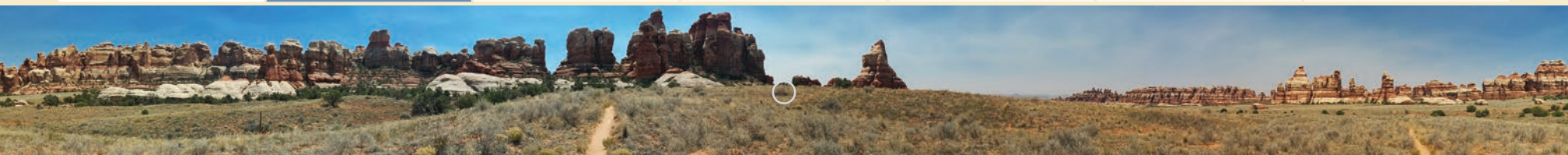


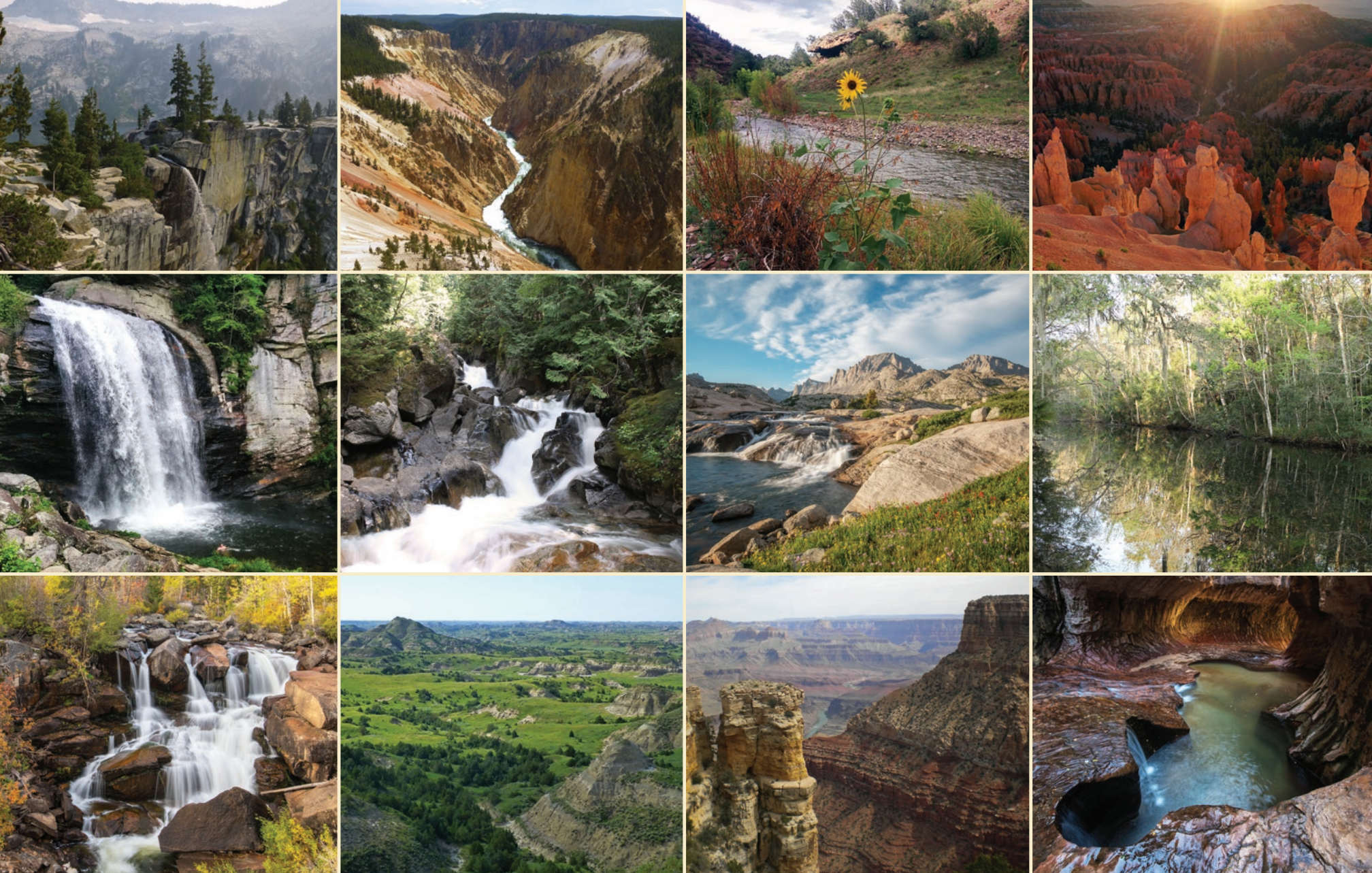


ZION SUBWAY: Zion Canyon, UT (ZICA1) *Scott Copeland*

# DECEMBER 2018

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																																																																																																		
25 IMPROVE Particle Sampling Day	26 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 27 Change IMPROVE Particle cartridges	28 IMPROVE Particle Sampling Day	29	30	1 IMPROVE Particle Sampling Day																																																																																																		
2 <i>Alternate Sample Change Day</i>	3 <i>Alternate Sample Change Day</i>	3-2-2 Week 2 2-3-2 Week 3 4 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	5 <i>Alternate Sample Change Day</i>	6 <i>Alternate Sample Change Day</i>	7 IMPROVE Particle Sampling Day	8																																																																																																		
9	10 IMPROVE Particle Sampling Day	3-2-2 Week 3 2-3-2 Week 1 11 Change IMPROVE Particle cartridges	12 <i>Alternate Sample Change Day</i>	13 IMPROVE Particle Sampling Day	14	15																																																																																																		
16 IMPROVE Particle Sampling Day	17 <i>Alternate Sample Change Day</i>	3-2-2 Week 1 2-3-2 Week 2 18 Change IMPROVE Particle cartridges	19 IMPROVE Particle Sampling Day	20	21	22 IMPROVE Particle Sampling Day																																																																																																		
23	24	Christmas Day 3-2-2 Week 2 2-3-2 Week 3 25 <i>Special cartridge change: move cassette 3 from old cartridge to new.</i> IMPROVE Particle Sampling Day	26 <i>Alternate Sample Change Day</i>	27 <i>Alternate Sample Change Day</i>	28 IMPROVE Particle Sampling Day	29																																																																																																		
30 IMPROVE Particle Sampling Day	31 IMPROVE Particle Sampling Day	1	2	3	<table border="1"> <thead> <tr> <th colspan="7">NOVEMBER 2018</th> <th colspan="7">JANUARY 2019</th> </tr> <tr> <th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th> <th>S</th><th>M</th><th>T</th><th>W</th><th>T</th><th>F</th><th>S</th> </tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td><td>1</td><td>2</td><td>3</td> <td></td><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td> </tr> <tr> <td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> <td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td> </tr> <tr> <td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td> <td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td> </tr> <tr> <td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td> <td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td> </tr> <tr> <td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td></td> <td>27</td><td>28</td><td>29</td><td>30</td><td>31</td><td></td><td></td> </tr> </tbody> </table>		NOVEMBER 2018							JANUARY 2019							S	M	T	W	T	F	S	S	M	T	W	T	F	S					1	2	3			1	2	3	4	5	4	5	6	7	8	9	10	6	7	8	9	10	11	12	11	12	13	14	15	16	17	13	14	15	16	17	18	19	18	19	20	21	22	23	24	20	21	22	23	24	25	26	25	26	27	28	29	30		27	28	29	30	31		
NOVEMBER 2018							JANUARY 2019																																																																																																	
S	M	T	W	T	F	S	S	M	T	W	T	F	S																																																																																											
				1	2	3			1	2	3	4	5																																																																																											
4	5	6	7	8	9	10	6	7	8	9	10	11	12																																																																																											
11	12	13	14	15	16	17	13	14	15	16	17	18	19																																																																																											
18	19	20	21	22	23	24	20	21	22	23	24	25	26																																																																																											
25	26	27	28	29	30		27	28	29	30	31																																																																																													





Photographs taken by IMPROVE Field Engineer, Josh Grant, and IMPROVE Steering Committee Chair, Scott Copeland. Cover Photo: TITCOMB BASIN CASCADE *Scott Copeland*

# IMPROVE

Interagency Monitoring of Protected Visual Environments