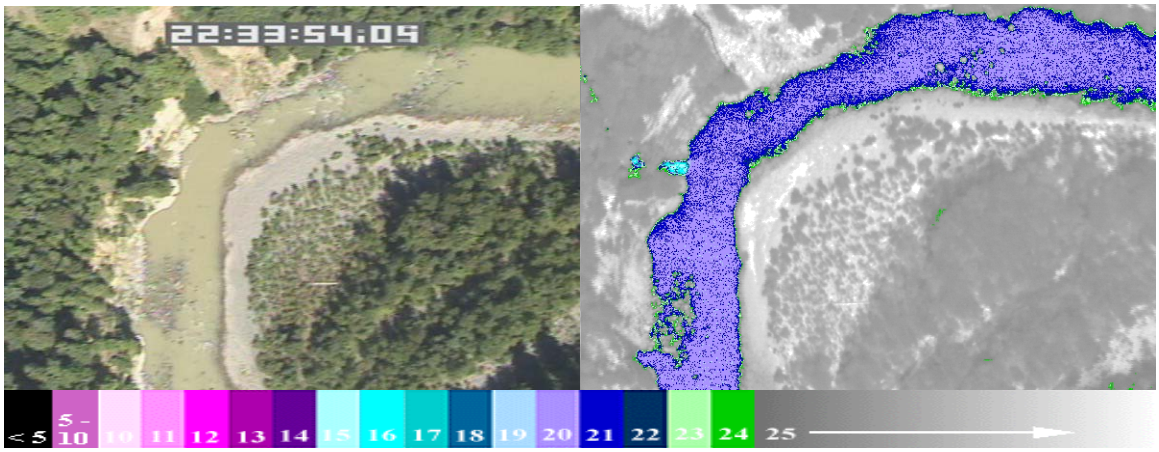
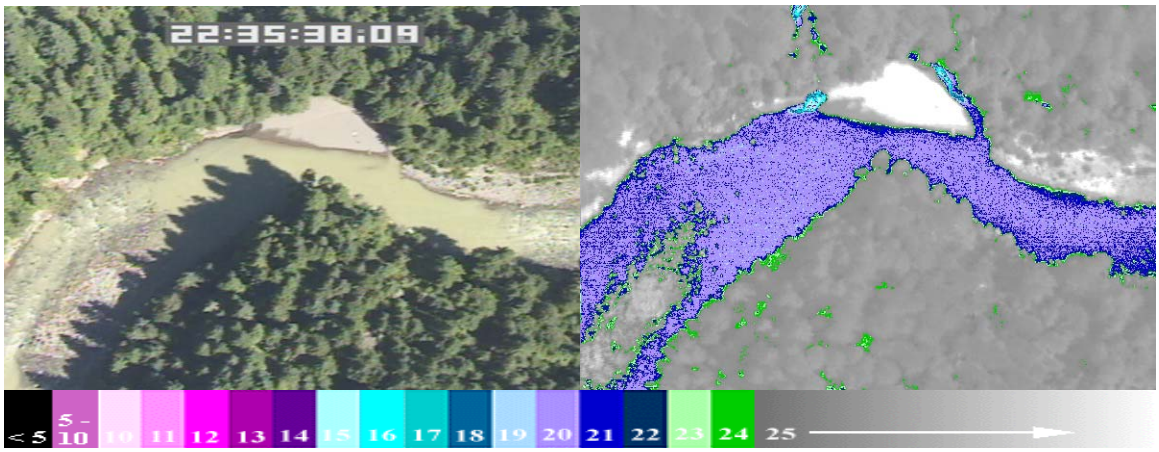
Appendix A – Selected Images from the Sandy River Basin

Sandy River



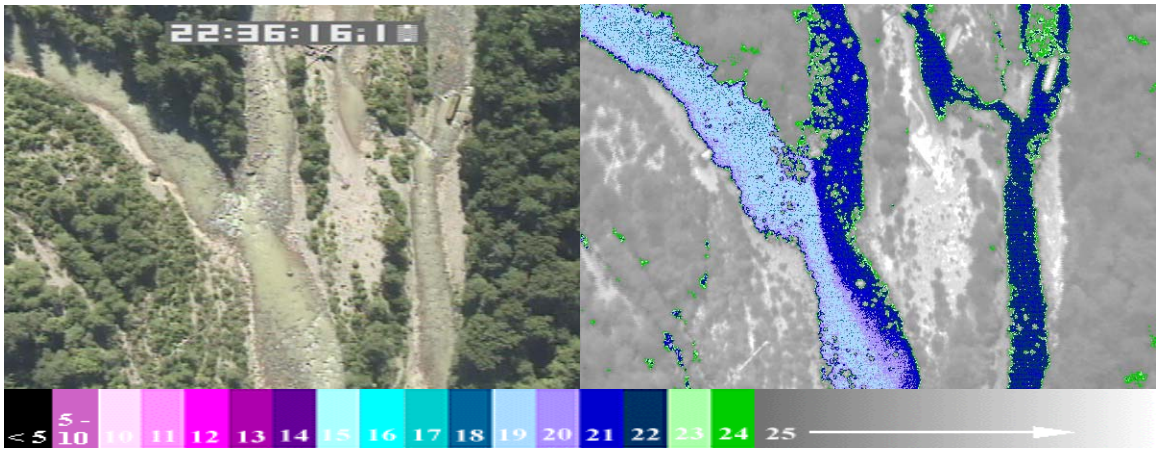
Visible band/TIR image

Frame: san0681 – The cold area along the right bank of Sandy River (20.5°C) at river mile 16.3 was sampled as a spring (15.9°C) although the source is somewhat uncertain.



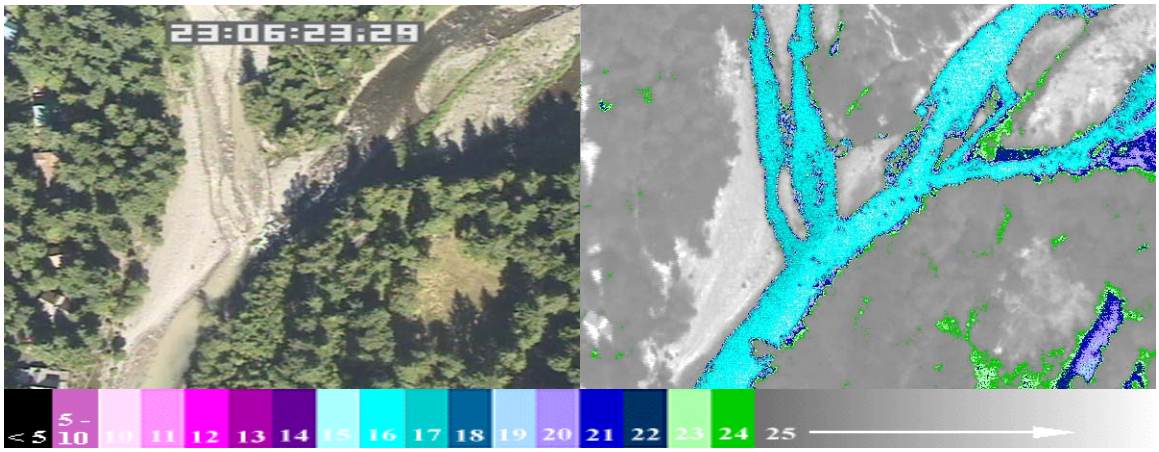
Visible band/TIR image

Frame: san0733 – Image pair showing the confluence of the Sandy River (20.4°C) and Walker Creek (15.3°C) at river mile 17.8.



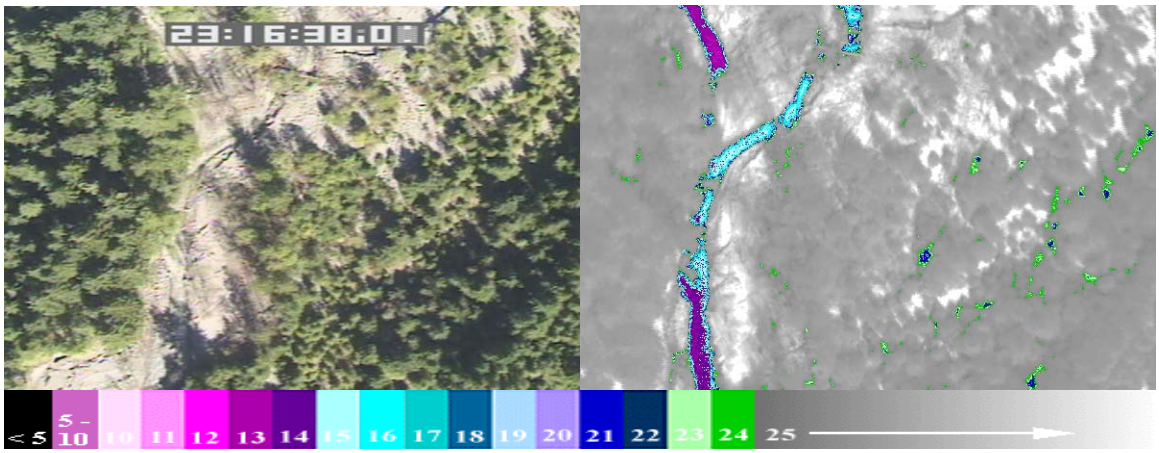
Visible band/TIR image

Frame: san0752 – Image pair showing the confluence of the Sandy River (22.0°C) and the Bull Run River (19.4°C) at river mile 18.4. The Bull Run River enters the Sandy River from the left side of the image.



Visible band/TIR image

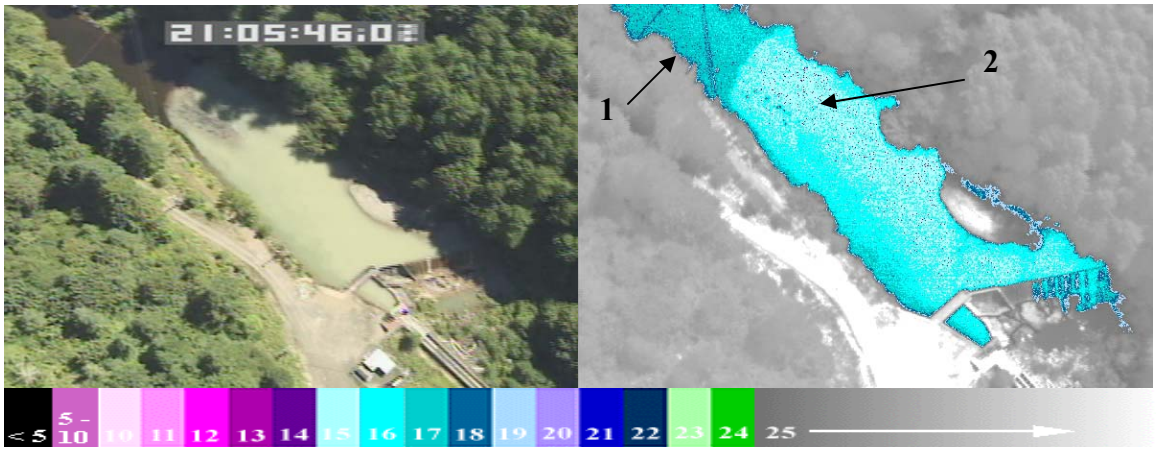
Frame: san1656 – Image pair showing the confluence of the Sandy River (16.9°C) and the Zig Zag River (15.8°C). The Zig Zag River enters the Sandy River from the right side of the image.



Visible band/TIR image

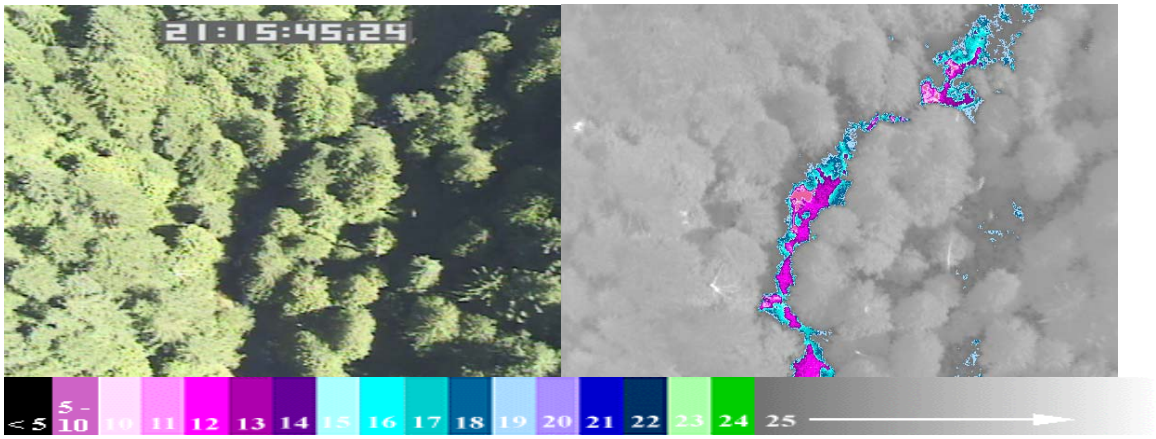
Frame: san1963 – Image pair showing the confluence of the Sandy River (15.7°C) and Muddy Creek (13.4°C) at river mile 49.2.

Little Sandy River



Visible band/TIR image

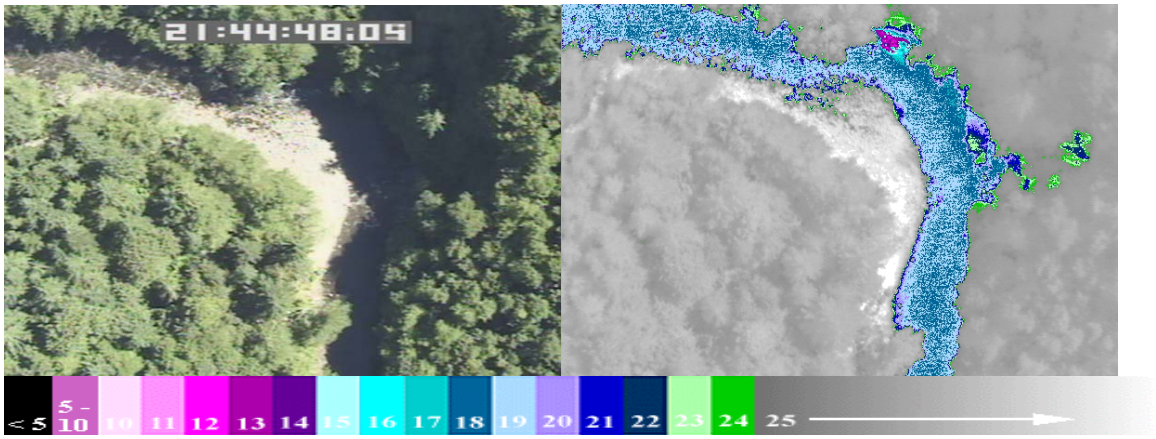
Frame: lsan0110 – Image pair showing the Little Sandy Dam at river mile 1.8. The Little Sandy River flows from the top to the bottom of the image. A temperature difference is observed between surface water further upstream (1; 17.6°C) and immediately upstream (2; 15.9°C) of the impoundment. The source of temperature change was not apparent in the image, but may be the result of inflow from the Marmot Diversion Dam.



Visible band/TIR image

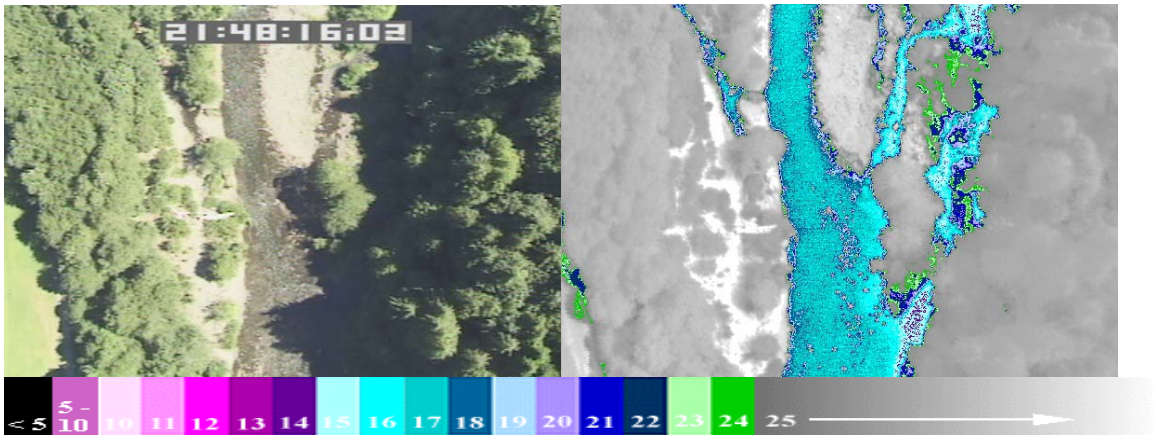
Frame: lsan0410 – Image pair showing the Little Sandy River (12.9°C) at river mile 7.8. Apparent springs are visible along the right bank (looking downstream), however, the level of canopy and associated shadows made positive identification difficult.

Salmon River



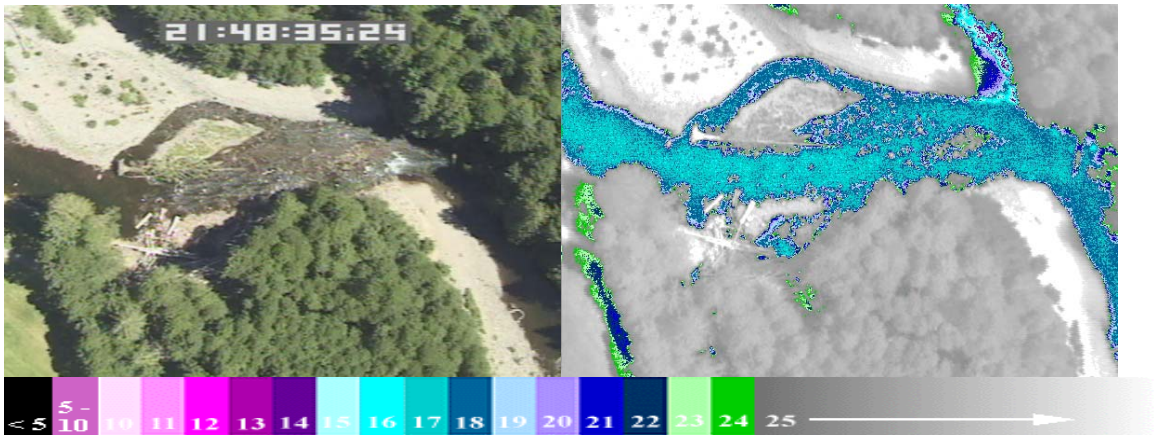
Visible band/TIR image

Frame: sfsa0199 – Image pair showing the Salmon River (19.0°C) at river mile 3.3. The cold area along the RB was sampled as a spring (13.3°C). However, the source of the cold area was not apparent from the visible imagery.



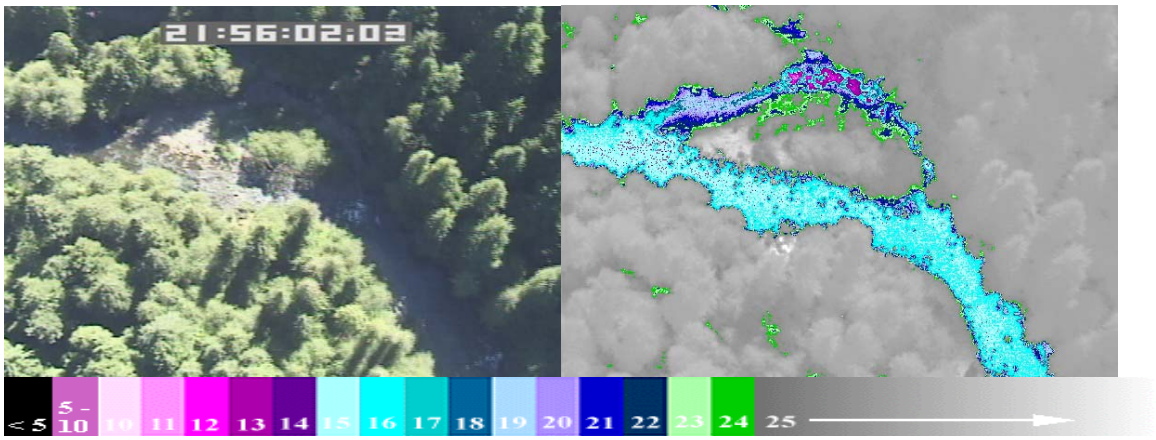
Visible band/TIR image

Frame: sfsa0303 – Unnamed tributary or spring (15.1°C) at river mile 5.5 downstream of Welches, OR has a cooling influence on mainstream temperatures (17.1°C). The Salmon River flows from the top to bottom of the image.



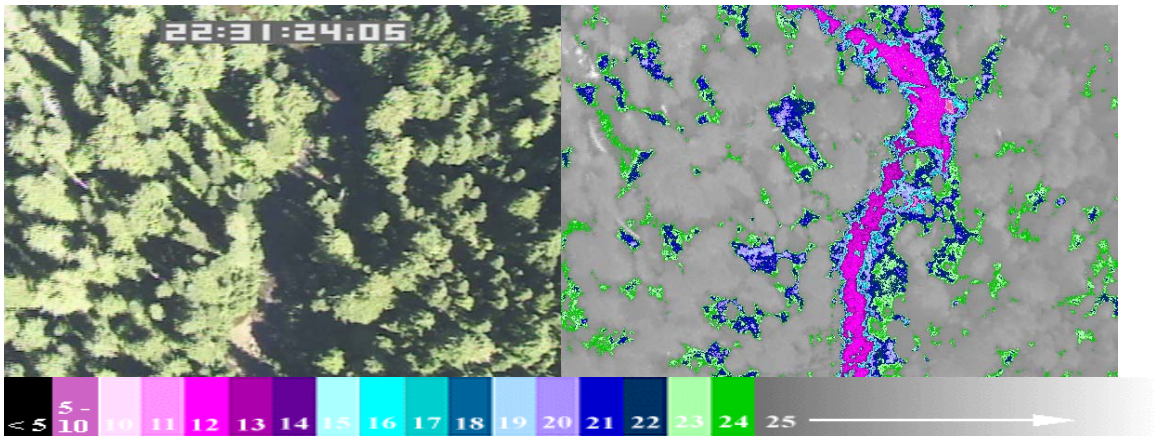
Visible band/TIR image

Frame: sfsa0313 – An unnamed tributary or spring (15.1°C) at river mile 5.6 also contributes cooler water to the mainstream (17.6°C). The Salmon River flows from the top to bottom of the image.



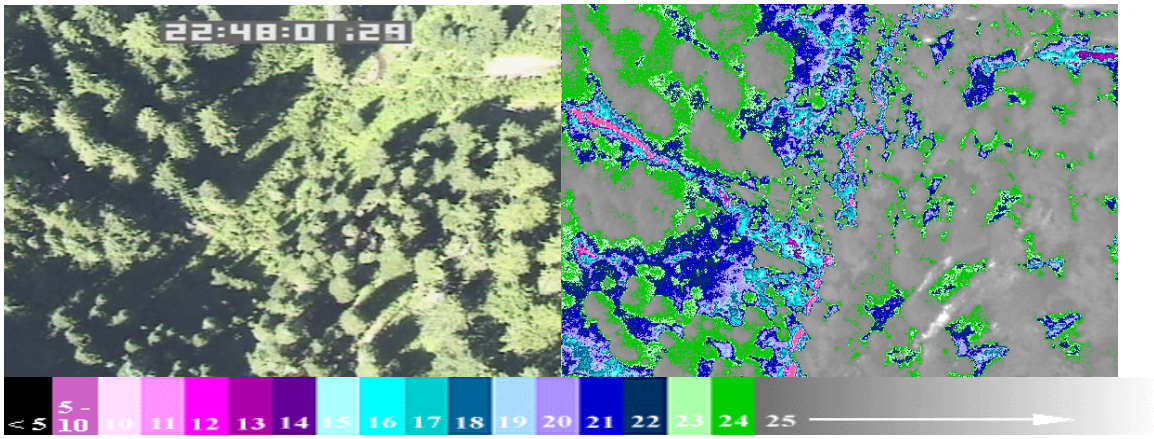
Visible band/TIR image

Frame: sfsa0536 – Image pair showing the Salmon River (15.6°C) at river mile 9.8 near the Salmon River Guard Station. The Salmon River flows from the top to the bottom of the image and a small, unnamed tributary flow enters along the left bank. The temperature of the tributary appears to be ~13°C. Small tributaries of this type were common along the Salmon River.



Visible band/TIR image

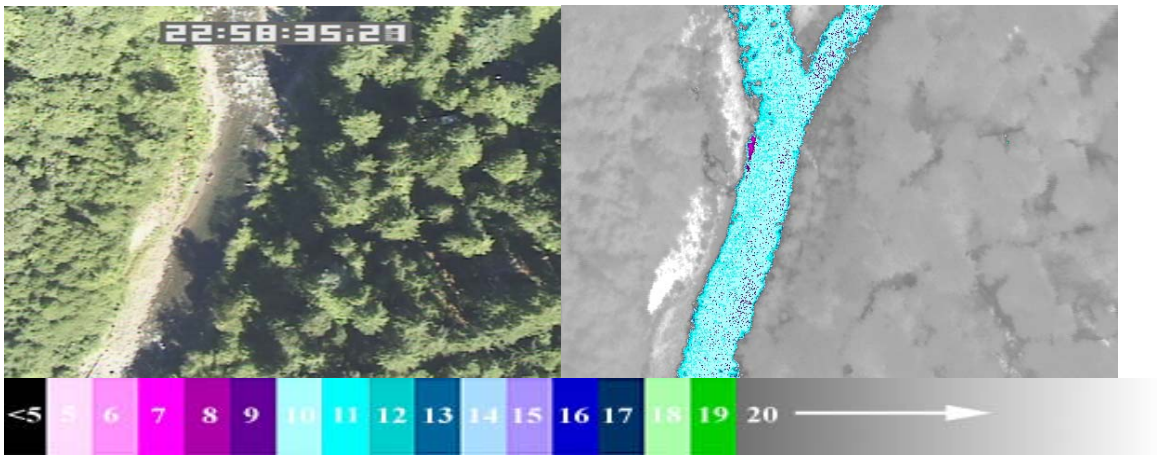
Frame: nfsa0622 – Image pair showing the Salmon River (12.6°C) and an unnamed inflow (8.9°C) at river mile 22.5. Several of these inflows were observed in the upper reaches of the Salmon River. The shadows cast by stream -side vegetation made it difficult to positively identify these areas in the visible band images.



Visible band/TIR image

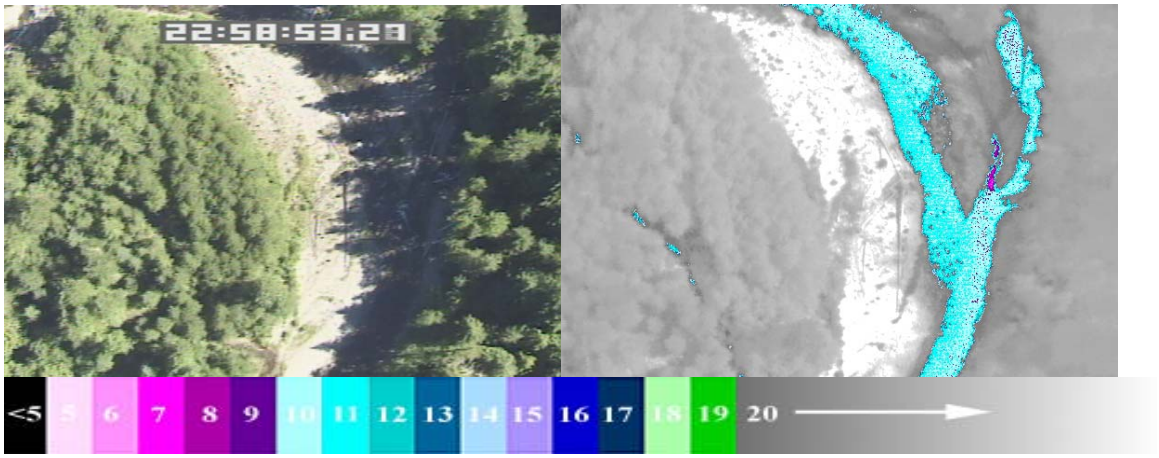
Frame: nfsa1106 – Image pair showing the Salmon River (8.7°C) and an unnamed inflow (8.3°C) at river mile 31.1.

Zig Zag River



Visible band/TIR image

Frame: zz0044 – Image pair showing the Zig Zag River (15.5°C) at river mile 0.7. Cool water seeps (13.7°C) are visible along the RB.

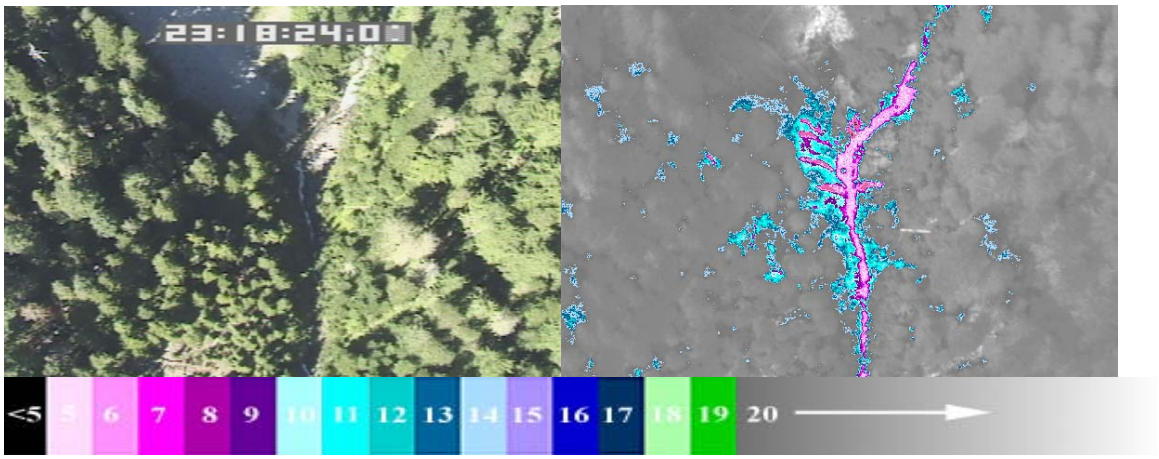


Visible band/TIR image

Frame: zz0053 – Small cold inflow (13.1°C) along the left bank of Zig Zag River (15.7°C) at river mile 0.9. The inflow is apparently due to cool water seeps through the substrate.

Visible band/TIR image

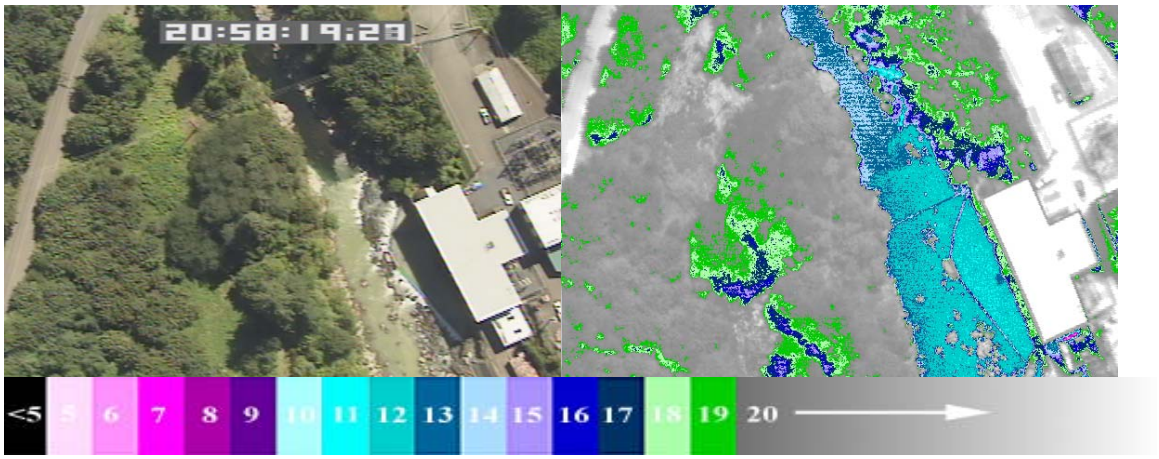
Frame: zz00464 – Confluence of the Zigzag River and the Little Zigzag River. The Zigzag River is barely visible through the canopy.



Visible band/TIR image

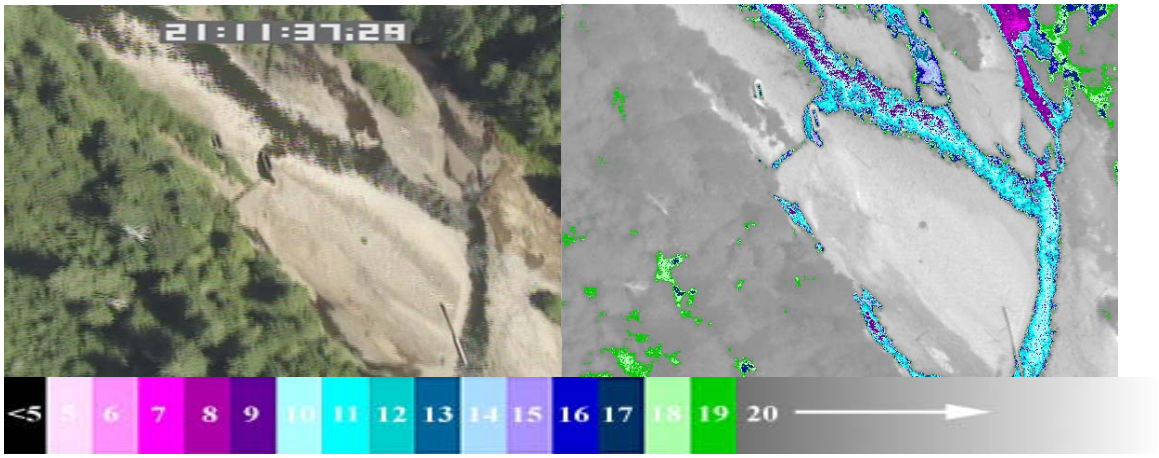
Frame: zz0638 – Apparent springs at river mile 11.9 of Zig Zag River (10.9°C). The springs are difficult to positively identify due to the small physical size of the inflows and the level of canopy.

Bull Run River



Visible band/TIR image

Frame: br0110 – Bull Run River at the power-house near river mile 1.5. An abrupt drop (approximately 1.4°C) in stream temperature is observed and appears to be due to cool water inflow.



Visible band/TIR image

Frame: br0509 – Image pair showing a small, cold inflow (13.2^{o}C) at river mile 10.2. The Bull Run River (15.3^{o}) flows from the top to bottom of the image.