**Nature Research and all external media have permission to use the file**: Picture1.jpg

**Caption**: Photo of Jakobshavn Isbræ (Greenland).

**Credit for the file**: Shfaqat Abbas Khan, DTU Space Denmark.

**Email address for the copyright holder**: Shfaqat Abbas Khan, DTU Space Denmark abbas@space.dtu.dk

**Nature Research and all external media have permission to use the file**: picture2.jpg

**Caption:** Photo of northern section of Jakobshavn Isbræ. The marks (dark-light boundary) on the mountains represent glacier elevation in 1875. Glacier elevation has dropped hundreds of metres.

**Credit for the file:** Shfaqat Abbas Khan, DTU Space Denmark.

**Email address for the copyright holder:** Shfaqat Abbas Khan, DTU Space Denmark abbas@space.dtu.dk

**Nature Research and all external media have permission to use the file**: picture3.jpg

**Caption**: Photo of Jakobshavn Isbræ. The glacier front in the background is flowing into the Kangia fjord. The marks left on the mountains represent glacier position around 1875. Retreat of the glacier has left a landscape filled with lakes.

**Credit for the file**: Shfaqat Abbas Khan, DTU Space Denmark.

**Email address for the copyright holder**: Shfaqat Abbas Khan, DTU Space Denmark abbas@space.dtu.dk

**Nature Research and all external media have permission to use the file**: picture4.CR2

**Caption**: Photo of Helheim Glacier, southeast Greenland.

**Credit for the file:** Nicolaj Krog Larsen, Denmark.

**Email address for the copyright holder**: Nicolaj Krog Larsen, nicl@sund.ku.dk

**Nature Research and all external media have permission to use the file**: video1.wmv

**Caption:** Large Calving Event at Helheim Glacier in Timelapse, Greenland.

**Credit for the file:** Nicolaj Krog Larsen, Denmark.

**Email address for the copyright holder**: Nicolaj Krog Larsen, nicl@sund.ku.dk

**Nature Research and all external media have permission to use the file**: video2.mov

**Caption:** Helicopter flying near the front ofHelheim Glacier, southeast Greenland. The ice front is approximately 70-90 m tall.

**Credit for the file:** Henrik Ipsen, Denmark.

**Email address for the copyright holder**: Shfaqat Abbas Khan, DTU Space Denmark abbas@space.dtu.dk

**Nature Research and all external media have permission to use the file**: video3.gif

**Caption:** Retreat and thinning of Jakobshavn Isbræ during 1875-2012.

**Credit for the file:** Shfaqat Abbas Khan, DTU Space Denmark.

**Email address for the copyright holder**: Shfaqat Abbas Khan, DTU Space Denmark abbas@space.dtu.dk

**Nature Research and all external media have permission to use the file**: video4.mp4

**Caption:** Helicopter flying over Kangia Fjord Greenland. The marks left on the mountains represent glacier position around 1875. Retreat of the glacier has left a landscape filled with lakes.

**Credit for the file:** Shfaqat Abbas Khan, DTU Space Denmark.

**Email address for the copyright holder**: Shfaqat Abbas Khan, DTU Space Denmark abbas@space.dtu.dk

**Nature Research and all external media have permission to use the file**: video5.mp4

**Caption:** Drone flying over Kangia Fjord Greenland. The fjord is filled with huge icebergs from Jakobshavn Isbræ.

**Credit for the file:** Anne Sofie Søndergaard, Aarhus University.

**Email address for the copyright holder**: Anne Sofie Søndergaard, Aarhus University annesofie@geo.au.dk