APPENDIX B ESTIMATED POSITIONS AND FIELDS-OF-VIEW OF CAMERAS ON ANDRITZ HYDRO HAMMERFEST TURBINES AT THE MEYGEN TIDAL ARRAY

In the absence of a description or schematic of the camera layout on the Andritz Hydro Hammerfest (AHH) turbines deployed at the MeyGen Tidal Array, an attempt has been made to estimate their positions through analysis of the available video datasets.

Camera 1 (on TTG 3 only as Camera 1 on TTG 2 was faulty):

Camera 1 appears to be positioned very close to turbine blades on underside of the nacelle. Therefore, there is much less light in the image compared to cameras 2 and 3 as the camera is shadowed from above by the nacelle.

Camera 2:

Camera 2 appears to be positioned further back on one of the top sides of the nacelle. There appears to be large foreshortening effect with the blades actually being much further away than they appear.

Camera 3:

Camera 3 appears to be positioned further back on one of the top sides of the nacelle. There appears to be large foreshortening effect with the blades actually being much further away than they appear.

Figure 1 Screen capture of AHH TTG 3 video footage to show field-of-view

Figure 2 **Field-of-view from each camera on turbine, Camera 1 is below and considerably closer to the rotor blades than Cameras 2 & 3.**

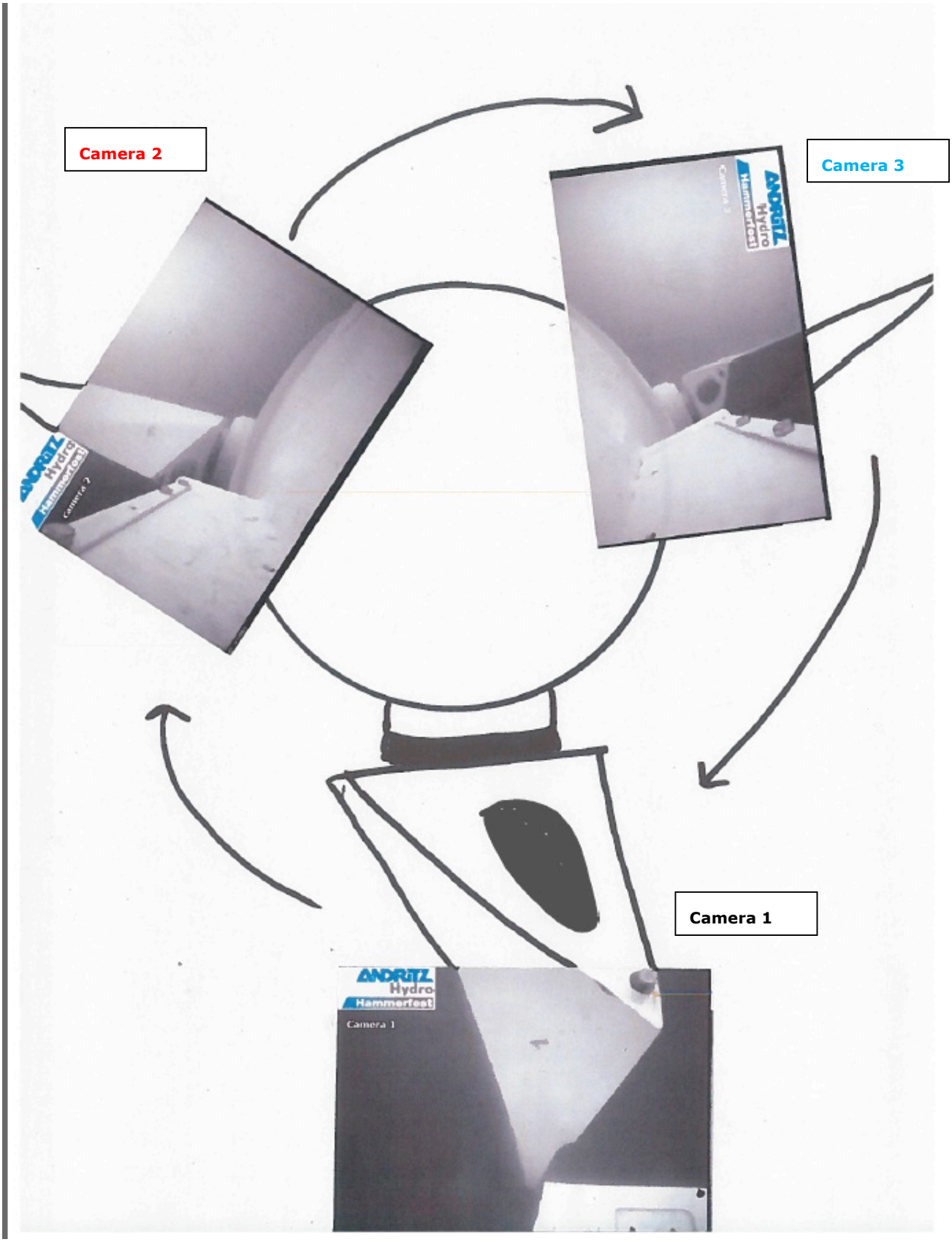
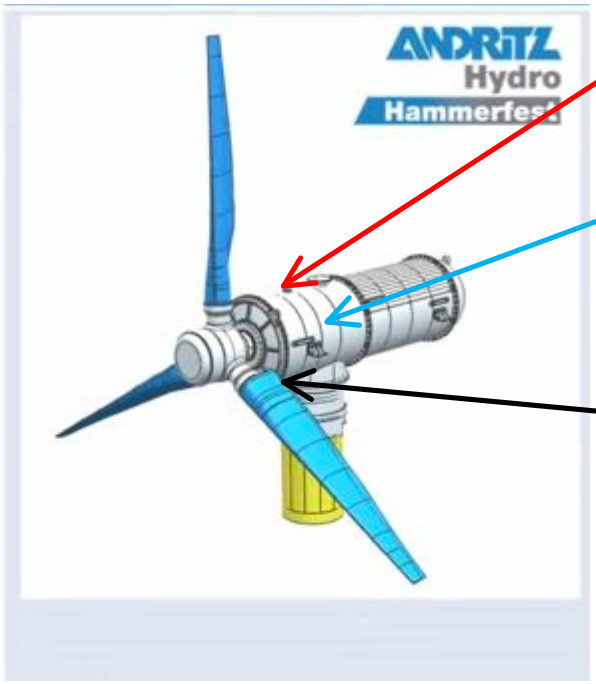


Figure 3 Estimated position of cameras on turbine

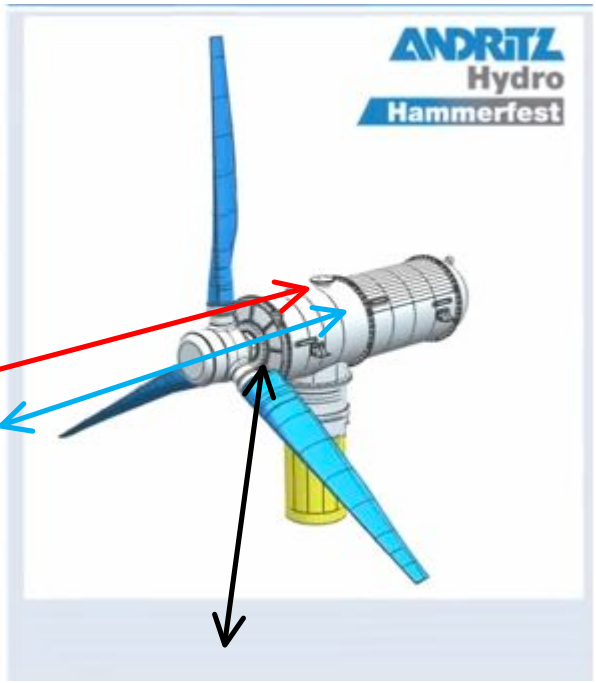


Camera 2 position

Camera 3 position: Positioned further back on nacelle. Large foreshortening effect observed.

Camera 1 position: Positioned very close to turbine blades on underside of nacelle. Therefore much less light as shadowed from above. The camera is angled in such a way that it is looking down the length of the turbine blade.

Figure 4 Direction cameras are pointing



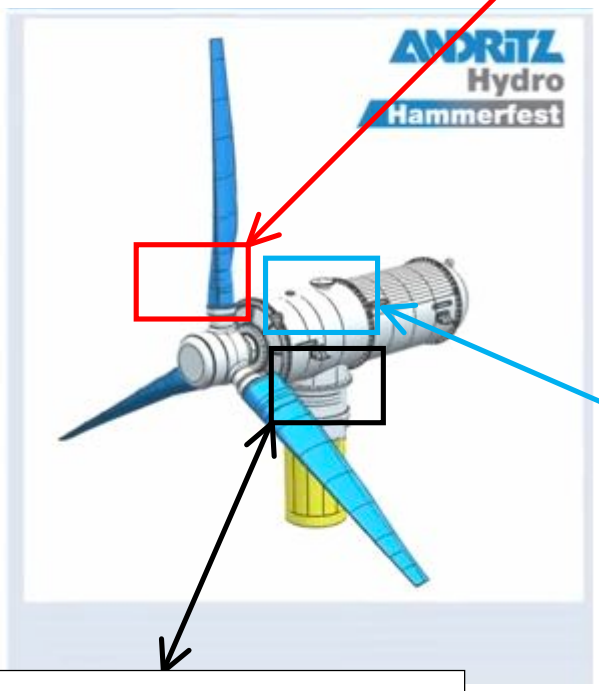
Camera 2 direction

Camera 3 direction: Camera 3 is facing out, looking through the blades.

Camera 1 position: Camera 1 is facing down, looking down the length (side) of the blades and capturing the top section of triangular part of turbine blade that is closest the nacelle without showing the part that attaches the blade to the nacelle.

Turbine structural support is visible in some footage. This supports the idea that this camera is facing down.

Figure 5 Estimated position of cameras on turbine



Camera 2 field-of-view: View shows section of turbine blades close to the nacelle rotating past in clockwise direction, including section that attaches blades to nacelle. Blades come into view from left of screen. The tips of blades are not visible.

Camera 3 field-of-view: View shows section of turbine blades close to the nacelle rotating past in clockwise direction, including section that attaches blades to nacelle. Blades come into view from left of screen. The tips of blades are not visible.

Camera 1 field-of-view: view shows very top section of triangular part of turbine blade that is closest the nacelle without showing the part that attaches the blade to the nacelle, therefore giving the appearance that the blade is floating. Blades come into view from the right of the screen as the camera is position below the nacelle, however the blades are still turning in a clockwise direction.