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IceCam: The automatic collection of sea ice observations during the International Polar Year

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The IceCam is an integrated visual monitoring and environmental data logging system designed for deployment on any platform. The autonomous, cost-effective system can provide consistent data on the extent and state of sea ice at regular intervals. This data can be employed to improve the interpretation of satellite data and validate climate models. During the International Polar Year (IPY) there will be a significant increase in shipping and aircraft activity in the polar regions. The deployment of an IceCam as part of a particular programme will allow human resources to be released from making ice observation records while ensuring more frequent and consistent observations are collected. It is estimated that the deployment of 50 IceCam units would result in over a million observations during the IPY. The data collected will be archived in an accessible central database from which users may extract data based on a variety of parameters including time, location and ice concentration. The presentation will outline how the data collected can be used to interpret satellite data and calculate ice concentration, with examples from the Greenland and Norwegian Seas. Together with how the data collected will be archived and distributed.