

1154-86-2401 **Darrell Jarrett Valenti*** (dvalenti984@g.rwu.edu), 139 Forest Street, New Canaan, CT 06840, and **Christopher Horvat**. *Tracking the Evolution of a Large Ice Disk in Westbrook, Maine, USA*. Preliminary report.

In winter 2018, a large circular ice disk formed in the Presumpscot river in Westbrook, ME. The disk had a diameter of approximately 102 meters and an area of 8283 m². The disk persisted in the river for at least 7 days before being frozen in. Ice disks such as this one are comparable to much larger sea ice floes that exist in polar regions. Developing methods to study and track such floes is difficult because of the challenge of obtaining repeated measurements of floes in such remote areas. Using three days of continuous time-series observations of the Westbrook disk and surrounding climate, we developed an algorithm that tracks the perimeter, radius, and motion of the disk and analyzes these descriptors with respect to differing climate conditions such as temperature, wind speed, and precipitation. We use this information, along with meteorological data from a nearby weather station, to constrain what causes changes in the disk over time. (Received September 17, 2019)