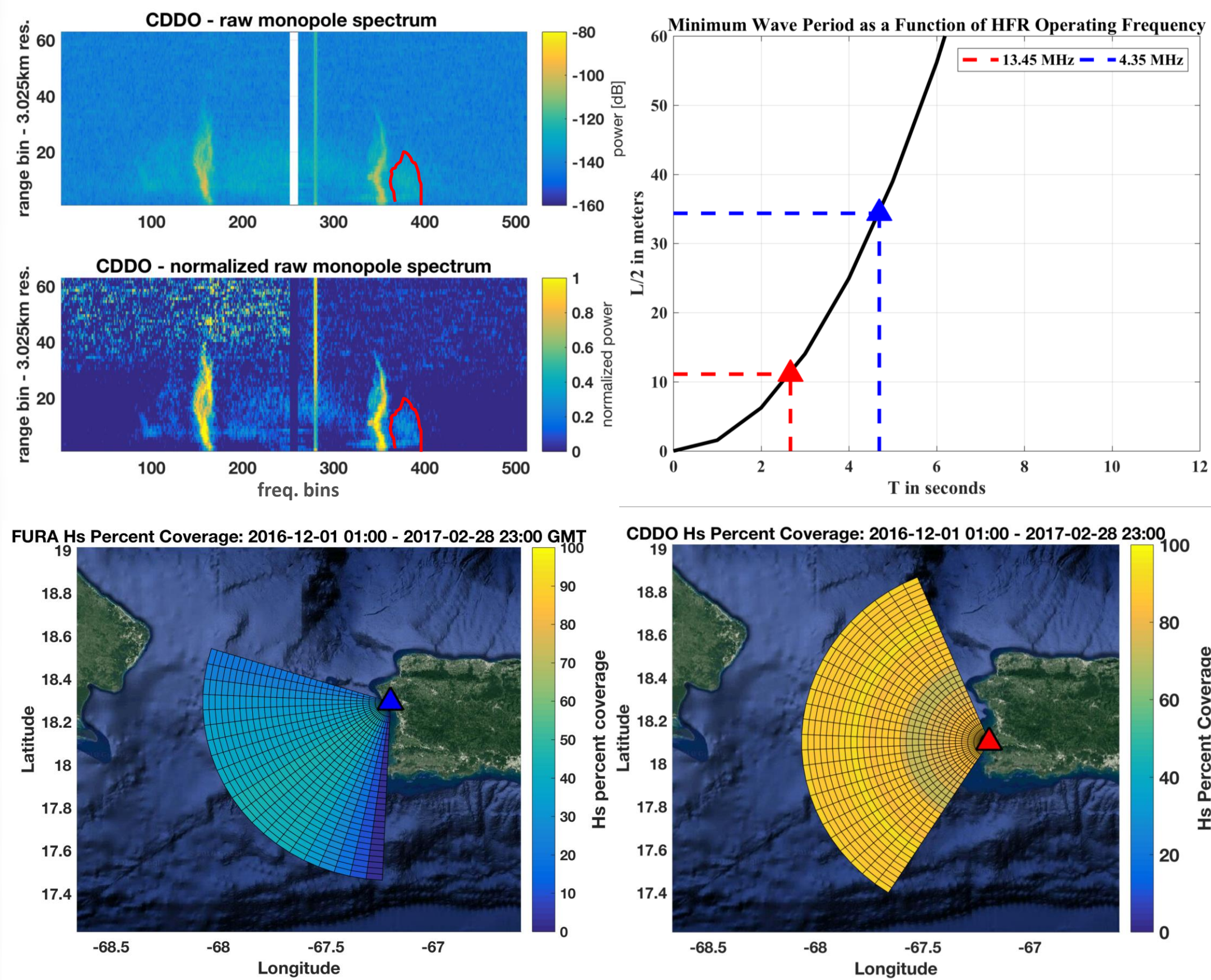


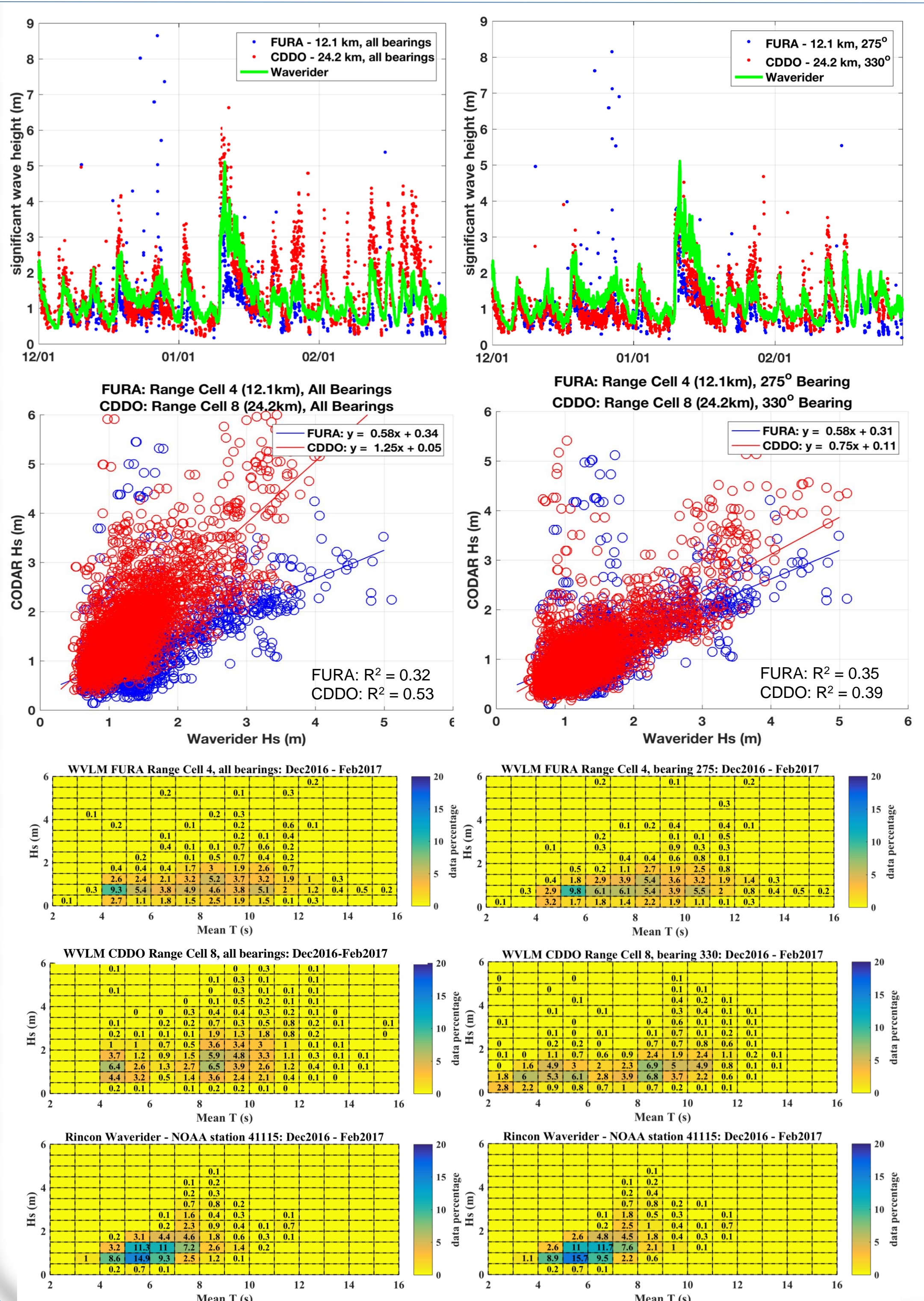
## HFR Spectrum and Wave Derivation

High frequency radar (HFR) provides the unique ability to extract wave information from the secondary energy return on a spatial scale specific to the operating frequency. The unique, heterogeneous wave climate associated with the Puerto Rico coastline offers motivation for future operational use of HFR-derived significant wave height.

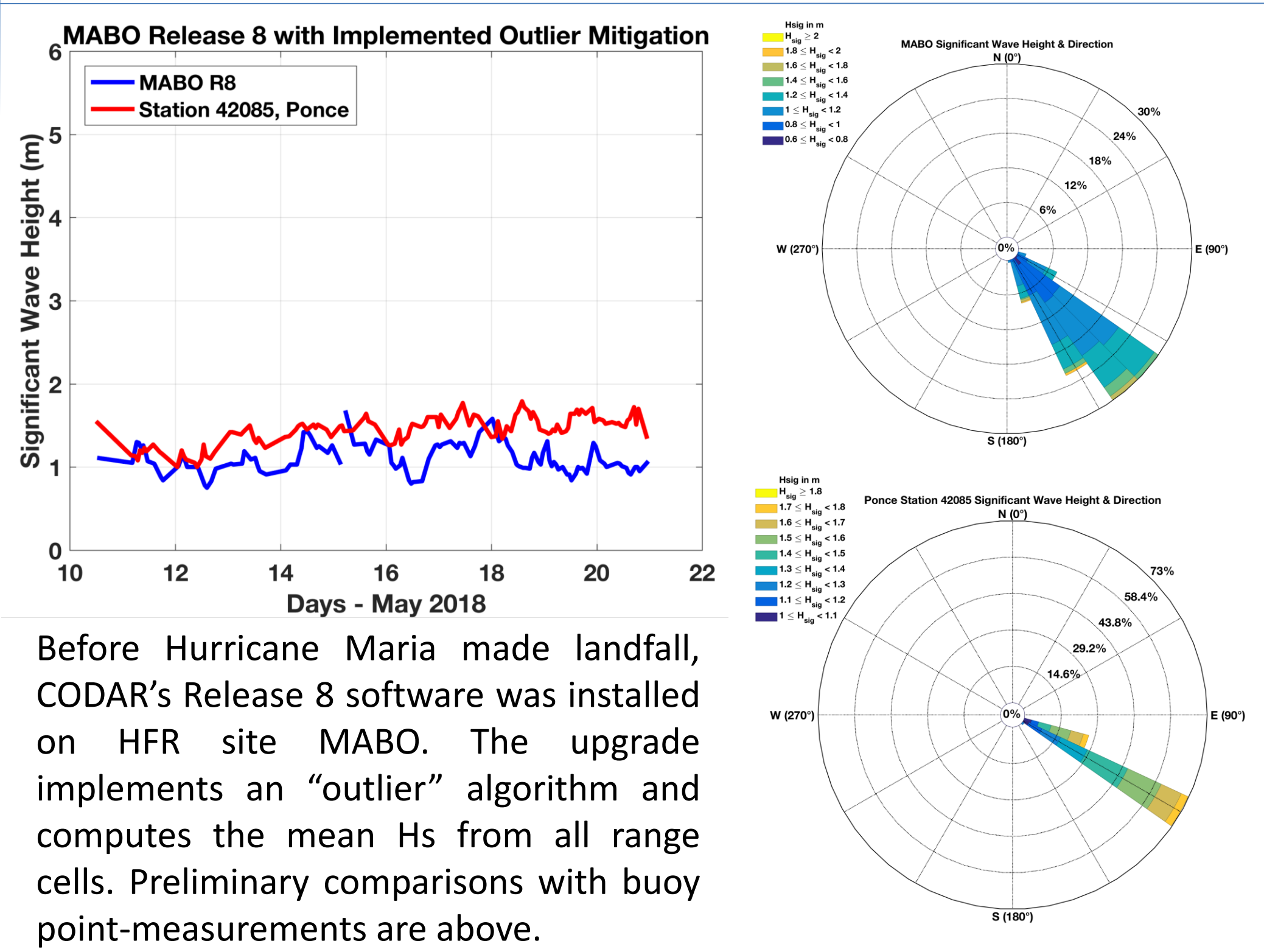


Depending on the radar transmit frequency, wave periods below L/2 cannot be resolved [top right]. However, a huge advantage of these systems is the ability to provide wave measurements on a spatial scale

## HFR - Waverider Comparisons



## Release 8 Software



Before Hurricane Maria made landfall, CODAR's Release 8 software was installed on HFR site MABO. The upgrade implements an "outlier" algorithm and computes the mean Hs from all range cells. Preliminary comparisons with buoy point-measurements are above.

## HFR - Wind Measurements

