

**Pathfinder, GHRSSST, and the SST Essential Climate Variable Framework**Kenneth Casey<sup>†</sup>; Robert Evans<sup>†</sup> NOAA National Oceanographic Data Center, USALeading author: [Kenneth.Casey@noaa.gov](mailto:Kenneth.Casey@noaa.gov)

In the last few years, the sea surface temperature (SST) community has coalesced its thinking on the SST Essential Climate Variable (ECV) framework through the efforts of the Group for High Resolution SST (GHRSSST) and the GCOS SST and Sea Ice Working Group. These efforts have resulted in an SST ECV product framework that consists of a three-dimensional array of related and coordinated products, each with different space-time, processing level, and SST-type characteristics. Taken together and visualized as a cube of related SST datasets, this framework is helping to optimize the distributed efforts of the international community. An overview of the SST ECV framework will be presented. Contributing to this framework are the latest versions of the Advanced Very High Resolution Radiometer (AVHRR) SST climate data record, known as Pathfinder Versions 5.2 and 6. These latest versions of Pathfinder will be presented in detail, with a focus on how the two were developed following an open, transparent, and accessible process. Pathfinder's position in the SST ECV cube will be illustrated as will its conformance to the new Version 2 GHRSSST Data Specification (GDS2), the community standard for satellite-based SST datasets. Comparison with other satellite and in situ based datasets will be presented along with a summary of future directions for the Pathfinder SST program.