The Global Space Based Inter-calibration System (GSICS) is an international collaborative effort initiated in 2005 by WMO and the CGMS to monitor, improve and harmonize the quality of observations from operational weather and environmental satellites of the Global Observing System (GOS). GSICS aims at ensuring consistent accuracy among space-based observations worldwide for climate monitoring, weather forecasting, and environmental applications.

GSICS products are calibration corrections. These corrections are produced by comparing a monitored instrument with a stable and accurate in-orbit reference. It is envisaged that when these coefficients are applied to monitored instruments it would correct it of its in-orbit measurement biases. The GSICS calibration coefficients are disseminated in real time via the GSICS Product catalog. GSICS has also developed best practices procedures that could be used to produce standardized satellite inter-comparison methods to produce the correction products and use them to improve in-orbit measurement biases.

The objective of the presentation is to introduce GSICS products and best practice methods and highlight some of their applications. The presentation would also introduce some of the new initiatives at the GSICS Coordination Center at NOAA that aim to reach out to scientific community to involve them in GSICS activities.