

The Mauna Loa Solar Observatory (MLSO) is an NSF observing facility operated by HAO since 1965 which has collected the longest record of coronal observations. There are two coronagraphs at MLSO which observe the low and middle corona: the COSMO K-Coronagraph (K-Cor) and the Updated Coronal Multi-Channel Polarimeter (UCoMP) which is the prototype for the proposed 1.5m COSMO large coronagraph.

We illustrate the current capabilities for space weather research and forecasts of the existing MLSO instruments and present plans for future instruments and upgrades.