Why Lunars Today?

- Some modern celestial navigators see Lunar-Distance as the Holy Grail, the ultimate challenge for observation and sextant skills. [Karl[10]]
- There is a precise evaluation of your sextant shots – how close can your Lunar-Distance observation get to the actual time you made the observation. Good skills can find time within a minute of GMT, excellent skills can get within 30 or 15 seconds. Better than that is, well luck.
- So, why would anyone practice Lunars today when a cheap 20$ Casio watch will keep GMT time to within a second for months on end?
- The short answer is for appreciation and confidence, but there are deeper reasons. [Reed]
- Lunars leads to an appreciation for and deeper understanding of astronomy, early missions of observatories and, most important, maritime history. There is more than half-century of literature and maritime practice related to Lunars.
- Simplification of Lunar-Distance technique and computation was an obsession of 18th and 19th century astronomers, mathematicians and navigators. Nathanial Bowditch, America's first post-Revolutionary War math savant, authored "The American Practical Navigator" which included chapters on Lunar-Observations and extensive tables for clearing the distance, interpolating Greenwich time and deriving Longitude. It's still in print, 100 years later, though lunars tables no longer appear.
- Engaging with historic Lunars techniques is to engage in the historical experience and that is rewarding enough. [Reed [11]]
- Historic ship logs often show Lunar calculations and how navigation was actually practiced. These calculations give insight and detail to voyage records. [Reed]
- Lunars illustrate the practical use of different time-keeping systems such as Greenwich Apparent Time, Greenwich Central Time, Greenwich Mean Time, Local Apparent Time, Zone Time and Equation of Time.
- Lunar clearance methods demonstrate a variety of math and simplification techniques such as logarithms, conveniences such as pLogs and trigonometric functions like Secants, as applied spherical trigonometry problems.

- And last perhaps, in the very rare event of losing the calendar day or UT at sea (storm lasting several days) with Lunars and only a poor watch it is possible to find what day it is and longitude at sea to within 30 nautical miles. Lunars, even in this rare circumstance, can be a backup to GPS. [John Karl, Bruce Stark]   Lunars provides a simple method simple method of using the moon to improve a fix without time. [Letcher, Gebhart [12]]

In summary … Lunars are both challenging and fun applied astronomy!

[10] John Karl, "Celestial Navigation in the Age of GPS"
[11] Frank Reed, NavList, **Practical lunars in today's world,** fer3.com/arc/m2.aspx/Practical-lunars-todays-world-FrankReed-apr-2016-g35059

[12] fer3.com/arc/m2.aspx/Persistence-demise-Lunars-Gebhart-dec-2017-g40908