

A LUNAR ARCHIVE -- J.D. Burke, JPL and J. Dator, U. Hawaii

- PURPOSE – TO PRESERVE RECORDS AND ENABLE THEIR RETRIEVAL AFTER A WORLDWIDE DISASTER
- WHY THE MOON? REMOTENESS, CONSTANT ENVIRONMENT
- TECHNICAL QUESTIONS:
  - ROBOTIC EMPLACEMENT
  - POWER SOURCES (ON MOON AND EARTH)
  - ASSURED RETRIEVAL
- POLICY MATTERS
  - WHO GOVERNS SELECTION
  - WHAT TO EMPLACE FIRST
  - HOW TO SUSTAIN MAINTENANCE AND GROWTH
- FOLLOW-ON
  - USE AS A LIBRARY FOR LUNAR SETTLERS

A LUNAR POLAR BASE: ROTATING POWER TOWER AT UPPER LEFT, CRYOGENIC TELESCOPES, SUBSURFACE HABITAT. ARCHIVE TIME CAPSULE WOULD BE BURIED NEARBY WITH RADIO LINE-OF-SIGHT TO EARTH

Painting by Maralyn Vickary Flynn

3 MM LUNAR BRIGHTNESS TEMPERATURES, A MEASURE OF ACTUAL TEMPERATURE IN TOP FEW CM OF REGOLITH. ONE METER BELOW SURFACE, TEMPERATURE IS LOW AND CONSTANT THROUGH LUNAR DAY AND NIGHT

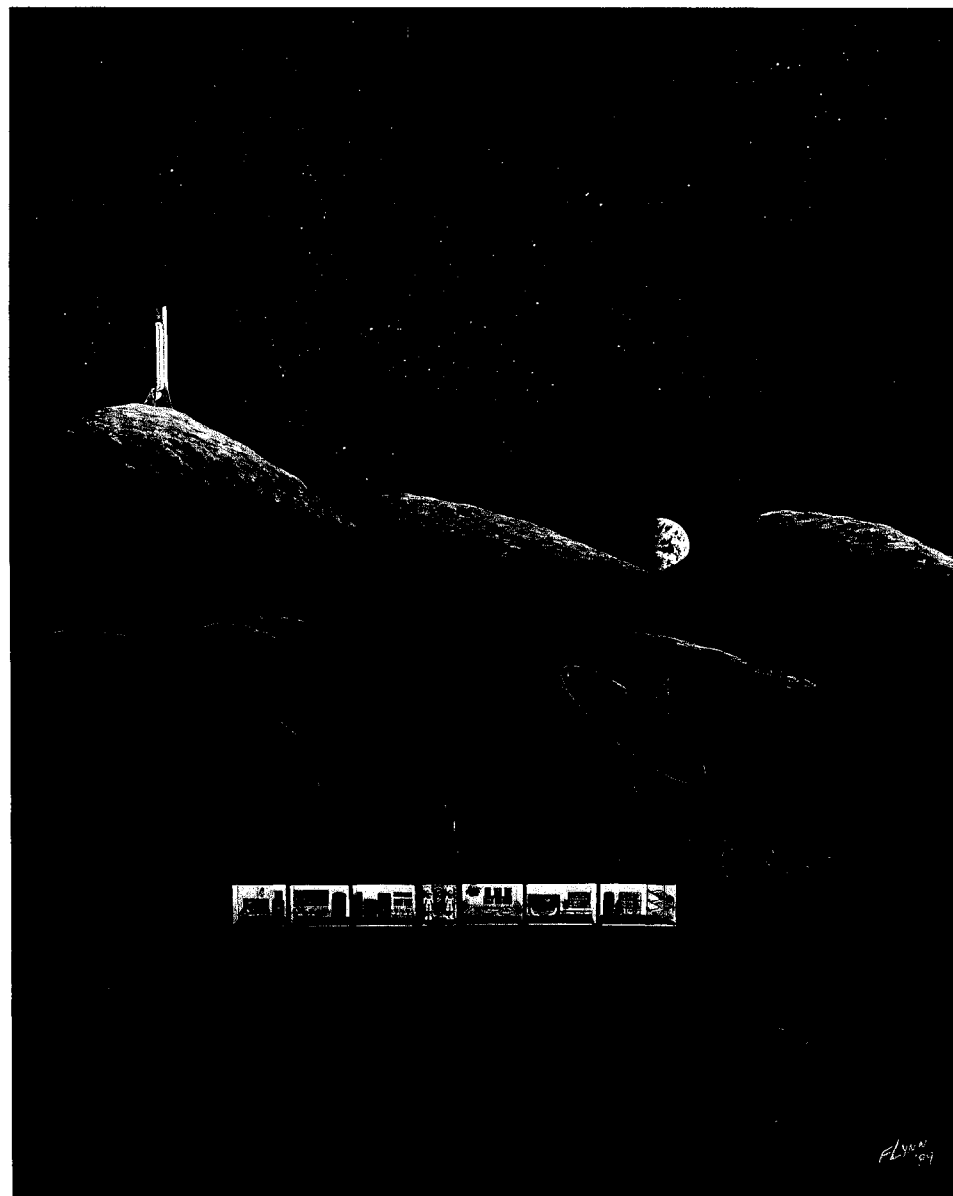
Gary, B., Stacey, J., and Drake, F.D.: 1965, *Astrophys. J. Suppl.* 12, 239

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JDB 16 June 00

On the poster  
this will be  
an 11x17  
color print

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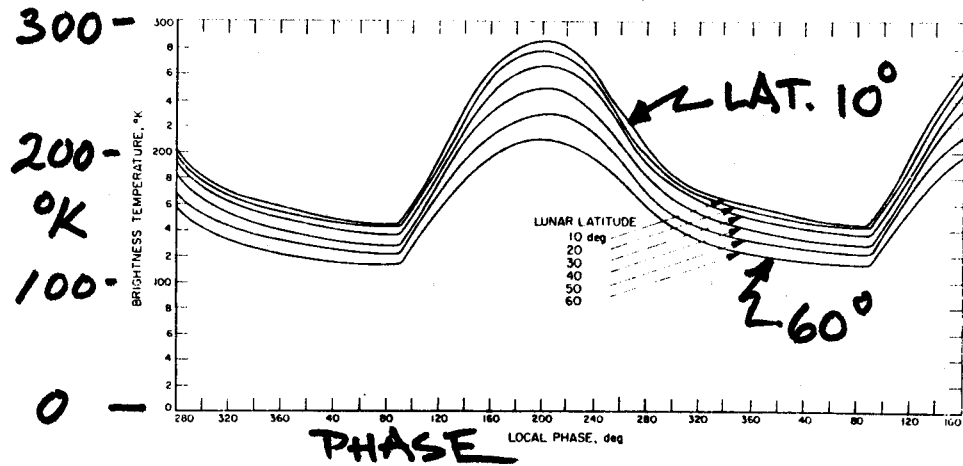
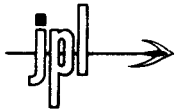


FIG. 34.—Brightness temperature versus local phase at selected lunar latitudes. No corrections have been made for effects related to emissivity or depth of emission.

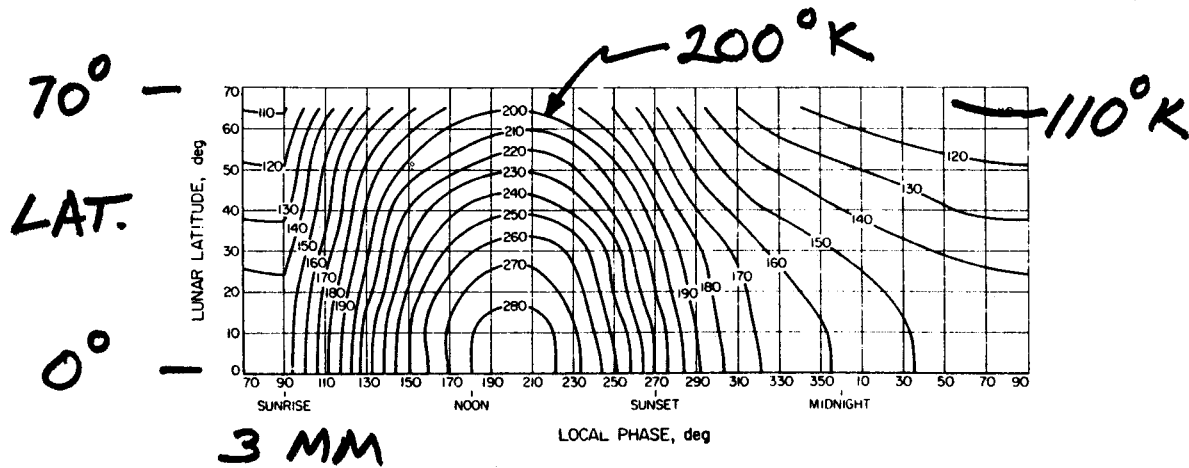


FIG. 35.—An empirical model showing the dependence of brightness temperature ( $^{\circ}$  K) on lunar latitude and local phase. No corrections have been made for effects related to emissivity or depth of emission. This plot may be used in comparing the observed brightness temperature of a particular region with the average observed brightness temperature of all other regions at the same lunar latitude and condition of solar illumination.

GARY ETAL (1965)