

CRYOGENIC TELESCOPE TEST FACILITY, '1'. S. Luchik, R.G. Chave, and A. E. Nash, Jet Propulsion Laboratory, Pasadena, CA 91109- An optical test Dewar is being constructed with the unique capability to test mirrors of diameter  $\leq 1$  m,  $f \leq 6$ , at temperatures from 300 to 4.2 K with a ZYGO Mark IV interferometer. This facility consists of two liquid helium cooled experiment mounts with a liquid helium cooled shield, surrounded by a liquid nitrogen cooled, blanketed shield, but no vapor cooled shielding. The facility possesses extensive thermometry throughout for characterization of the test chamber thermal environment and Dewar performance. The facility features warm photon shielding through the use of crushed iridium filled joints. Optical access is controlled with cryogenically cooled shutters. The entire Dewar is vibration isolated with a transmissibility of 0.01 @ 101 Hz. The facility will be on line in early 1995 for its first user, the Infrared Telescope Technology Testbed (ITTT), for the Space Infrared Telescope Facility (SIRTF) at JPL. The design and performance of this facility will be presented.

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