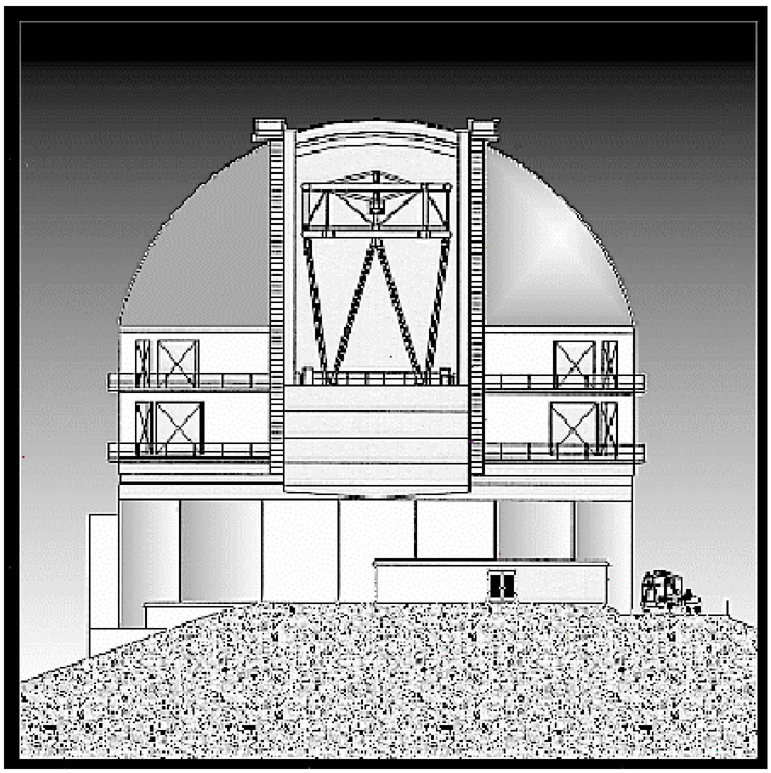
ICD-G0005

Telescope, Enclosure, and Instrument Rotator Maximum Velocity, Acceleration, and Minimum Deceleration Requirements



M. Warner
J. Oschmann
Revision C
July 28, 1995

Approved by Systems Engineer: ____________________

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Revision Control Descriptions

Revision: Original release, November, 1993

Revision: A
Date: 4 April 1994
Approved:
Description: Added Telescope altitude braking deceleration requirement
Added Telescope azimuth braking deceleration requirement
Added Enclosure slewing velocity and acceleration requirements
Added Enclosure tracking velocity and acceleration requirements
Changed Telescope altitude tracking acceleration requirement (was 3.5E-5 d/s^2)
Changed Telescope azimuth tracking acceleration requirement (was 2.5E-3 d/s^2)

Revision: B
Date: 1 December 1994
Approved: Keith Raybould
Description: Added Telescope azimuth and altitude offset velocity and acceleration requirements
Added Applicable Range limits
Added Shutter Slewing and Tracking velocity limits
Added Instrument Rotator slewing and tracking velocity limits
Changed Telescope altitude tracking acceleration requirement (was $\pm$ 0.01 d/s^2)
Changed Telescope altitude slewing acceleration requirement (was $\pm$ 0.025 d/s^2)
Changed Telescope azimuth tracking acceleration requirement (was $\pm$ 0.025 d/s^2)

Revision: C
Date: 28 July 1995
Approved: Keith Raybould, Rick McGonegal
Description: Changed minumum Az braking deceleration (was - 1.0 d/s^2)
Changed minumum Alt. braking deceleration (was -0.3 d/s^2)
Corrected Altitude Offset velocity (was +/- 0.004 d/s)

This General Interface Document describes the Telescope, Enclosure, and Instrument Rotator Maximum Velocity, Acceleration, and Minimum Deceleration Requirements.

1.0 Telescope Requirements

Telescope	*Velocity deg/sec*	*Acceleration deg/sec^2*	*Applicable Range*
Azimuth Slew	$\pm$ 2.00	$\pm$ 0.10	$\pm$ 270 deg
Azimuth Track	$\pm$ 0.50	$\pm$ 0.05	$\pm$ 270 deg
Azimuth Offset	$\pm$ 0.50	$\pm$ 0.05	$\pm$1 arcmin
Altitude Slew	$\pm$ 0.75	$\pm$ 0.05	15-89.5 deg
Altitude Track	$\pm$ 0.50	$\pm$ 0.02	$\pm$ 1 arcmin
Altitude Offset	$\pm$ 0.50	$\pm$ 0.02	15-89.5 deg

Minimum Azimuth Braking Deceleration -2.0 deg/sec^2
Minimum Altitude Braking Deceleration -0.80 deg/sec^2

2.0 Enclosure and Shutter Requirements

Enclosure	*Velocity deg/sec*	*Acceleration deg/sec^2*
Azimuth Slew	$\pm$ 3.00	$\pm$ 0.05
Azimuth Track	$\pm$ 0.50	n/a

Shutter	*Velocity Limit deg/sec*	*Acceleration Limit deg/sec^2*
Shutter Slew	0.4	--
Shutter Track	0.05	--

3.0 Instrument Rotator Requirements

Instrument Rotator	*Velocity Limit deg/sec*	*Acceleration Limit deg/sec^2*
Rotator Slew	2.0	0.1
Rotator Track	0.5	0.03