

CO2 Cleaning of INT primary mirror following series of calima events, including strong event 23-25 Feb. Compressed air on mirror used before CO2, as a test. Humidity 35% in dome, but no clumping of CO2 flakes was observed. Reflectivity and scattering measurements from CT7 only.

Measurements before any cleaning action:

	Tempr. °C	%R per wavelength of band (nm)						"Dust Indices"							
		365	404	464	522	624	760	970	365	404	464	522	624	760	970
1657 05/03/2020 13:48 centre R	19.3	77.6	76.6	76.7	75.0	76.6	71.0	78.1	18.1	18.8	20.7	20.2	20.7	21.5	21.3
1658 05/03/2020 13:49 bottom R	19.4	78.9	78.2	78.3	78.9	77.7	75.3	79.9	18.0	17.5	19.2	15.5	19.2	17.5	18.4
1659 05/03/2020 13:50 centre L	19.6	78.1	77.4	77.7	77.6	77.2	74.4	78.6	18.3	18.0	19.5	17.2	20.5	18.9	20.4
average before cleaning		78.2	77.4	77.6	77.2	77.2	73.6	78.9	18.1	18.1	19.8	17.6	20.1	19.3	20.0
Measurements after application of compressed air gun.															
1660 05/03/2020 13:56 centre R	20.1	80.3	79.3	81.9	77.3	81.8	78.0	78.8	17.6	18.2	17.2	20.1	16.0	16.8	22.6
1661 05/03/2020 13:58 bottom R	20.2	84.0	82.8	82.8	83.4	82.7	80.0	85.5	15.7	15.7	16.1	12.9	14.9	13.6	13.7
change after dry air		3.9	3.7	4.9	3.4	5.1	5.9	3.2	-1.4	-1.2	-3.3	-1.4	-4.5	-4.3	-1.7
Measurements after one pass with CO2 flakes															
1662 05/03/2020 14:17 centre R	19.8	76.1	78.4	78.2	76.5	73.4	72.5	78.2	28.8	29.2	32.3	26.1	26.4	22.0	29.7
1663 05/03/2020 14:18 bottom R	19.8	85.4	84.6	84.7	85.4	85.1	82.2	88.4	13.7	12.9	13.4	9.5	10.9	9.2	8.3
1664 05/03/2020 14:19 centre R	19.9	84.6	84.2	84.6	85.4	84.9	82.6	88.3	14.8	13.6	13.2	10.1	10.9	8.8	8.3
1665 05/03/2020 14:20 centre L	20.2	84.9	84.5	85.2	85.4	85.3	82.8	88.0	13.8	12.9	11.8	9.8	10.0	8.1	8.7
1666 05/03/2020 14:21 pos unk	20.4	83.2	82.5	82.7	83.1	82.8	80.0	85.9	16.9	16.1	16.3	13.6	15.2	13.4	13.0
1667 05/03/2020 14:22 bottom	20.7	84.4	83.5	88.3	90.5	89.4	82.9	86.0	2.7	3.2	2.7	1.7	1.3	1.0	1.3
change, all cleaning center R		7.0	7.6	7.9	10.4	8.3	11.6	10.2	-3.3	-5.2	-7.5	-10.1	-9.8	-12.7	-13.0
bottom R		6.5	6.4	6.4	6.5	7.4	6.9	8.5	-4.3	-4.6	-5.8	-6.0	-8.3	-8.3	-10.1
center L		6.8	7.1	7.5	7.8	8.1	8.4	9.4	-4.5	-5.1	-7.7	-7.4	-10.5	-10.8	-11.7
overall average change from cleaning (outlying data omitted)		6.3	6.5	7.5	8.8	8.3	8.5	8.5	-3.3	-4.2	-6.1	-6.9	-8.4	-9.4	-10.5

average results (outlying data omitted)	%R	84.5	84.0	84.3	84.8	84.5	81.9	87.7	14.8	13.9	13.7	10.8	11.8	9.9	9.6
Average over all bands	84.5 %	365	404	464	522	624	760	970	365	404	464	522	624	760	970
		%R per wavelength of band (nm)						"Dust Indices"							

%DI