

TMS MASS BUDGET									
ASSEMBLY (LEVELS INDENTED)	CONFIGURATION/PORTION								
	SUS Mass [kg]			Non-SUS Mass [kg]			Full Cartridge [kg]		
	Req	Modeled	Measured	Req	Modeled	Measured	Req	Modeled	Measured
D0900419 BSC6-H2 TMS Installation <sub>(1)</sub>	194	206.20		70	81.90		194	209.10	
D1002460 Telescope Assembly <sub>(2)(3)</sub>	80	77.99	79.2				80	78.47	
D1000484 ISC TMS Assembly <sub>(4)</sub>		51.23						51.70	
Table Structural Assembly (less trim masses)		25.04						25.52	
Trim Masses		11.05						11.05	
ISC Components	15	15.14					15	15.14	
D1003120 Telescope Frame Assembly		26.70						26.70	
Hardware		0.05						0.05	
D1101163 Telescope SUS Wire Assemblies		0.32						0.32	
UPPER STRUCTURE WITH TOP STAGE (Frame, Top Stages, Table Cloth, & BOSEMS)	60	57.82		60	57.82		60	57.82	
D1101166 Upper SUS Wire Assemblies		0.36						0.36	
D1000444 Top Mass	44.1	43.99	44.0				44.1	43.99	44.0
TWO VIBRATION DAMPERS		6.15			6.15			6.15	
DOG CLAMPS (12 long, 7 short, screws, washers)	10	10.46		10	10.46		10	10.46	
D1101130 2 X 5 BEAMS, BRACKETS, EYE-BOLTS, FASTENERS		6.70			6.70			6.70	
D1100827 VERTICAL SAFETY WIRE ASSEMBLY		0.49			0.49			0.49	
BOSEM & ISC ELECTRONICS CABLES, RELATED HARDWARE		1.62						1.62	
"STABLIZATION ON CARTRIDGE" HARDWARE (chain assemblies, turn buckle assemblies)								2.42	
<b>TOTAL (of entries in blue)</b>		<b>205.91</b>			<b>81.62</b>			<b>208.80</b>	
SUB-ASSEMBY FASTENING HARDWARE plus NET ROUND-OFF ERROR <sub>(5)</sub>		diff= 0.29			diff= 0.28			diff= 0.29	

Foot Notes:

- (1) All entries this row include complete TMS installation with upper Dog Clamps (10.46 kg total calculated) and two Vibration Absorbers (6.2 kg total calculated).  
"Cartridge" configuration includes added stabilization hardware (chain assemblies, turnbuckle assemblies). (Total mass: 2.42 kg.)
- (2) All entries this row include the complete TMS Telescope (Telescope Frame Assembly, Optics Table Assembly & trim masses, ISC components).  
"Cartridge" configuration includes ten eye-bolts added to Optics Table for stabilization (0.5 kg total calculated).
- (3) Mass entries are the sum of purple column entries less fastening hardware and round-offs.
- (4) Mass entries are the sum of light green column entries.
- (5) D0900419 mass (salmon column entry) minus TOTAL (dark green column entry).