

Deep Impact Mission Timeline

Acronyms

ADCS	Attitude Determination and Control Subsystem
DOR	Differential One-way Ranging
FB	Flyby spacecraft
FSW	Flight Software
HGA	High-Gain Antenna
IMP	Impactor
LUT	Lookup Tables (for compression)
NVM	Non-Volatile Memory
ORT	Operations Readiness Test
PLAR	Post Launch Assessment Review
SCU	Spacecraft Control Unit
TCM	Trajectory Correction Maneuver

Inst Temps Likely Affected	Actual Through DOY 156 Planned DOY 157 through 191	Date	Day of DOY
	Launch Day 1, Safe Mode Entry	Jan 12	012
Yes	Safe Mode Recovery, Go to Point	Jan 13	013
	HRI/MRI Checkout and Quick Alignment	Jan 14	014
	Prep for Science Cal	Jan 15	015
Yes	HRI/MRI Science Moon/Earth Cal (VIS and IR) Part 1, HRI Focus Test	Jan 16	016
Yes	HGA Gimbal Unlock and Checkout, Transition to HGA	Jan 17	017
	Margin	Jan 18	018
Yes	FSW Patch 6.2.4, Solar Flare-Induced Safe Mode Entry	Jan 19	019
Yes	Safe Mode Recovery	Jan 20	020
Yes	Safe Mode Recovery	Jan 21	021
	Margin	Jan 22	022
	Margin	Jan 23	023
Yes	HGA Gimbal Anomaly	Jan 24	024
Yes	MRI Stray Light Test - MRI Turn-Off Anomaly	Jan 25	025
	Flyby Autonav Test - Moon	Jan 26	026
	Margin	Jan 27	027
Yes	MRI Stray Light	Jan 28	028
Yes	HRI Focus, IR Stray Light, HRI Snippet Test, IR Lunar Scan	Jan 29	029
	Margin	Jan 30	030
	Margin	Jan 31	031
	Impactor Checkout Part 1	Feb 01	032
	RWA Uncoupled Desat	Feb 02	033
	Delta DOR	Feb 03	034
	IR Lunar Scan	Feb 04	035
Yes	Flyby Autonav Test - Jupiter	Feb 05	036
	Margin	Feb 06	037
	Margin	Feb 07	038
	FSW Patch 6.3.0 Flyby File Uplink and SCU-B Install	Feb 08	039
Yes	FSW Patch 6.3.0 Flyby SCU-A Install, Shield Mode Recovery	Feb 09	040
	TCM-1 Uplink Window	Feb 10	041

Yes	TCM-1 Execution	Feb 11	042
	Margin	Feb 12	043
	Margin	Feb 13	044
	Margin	Feb 14	045
	HRI Ghost Image Test	Feb 15	046
	FSW Patch 6.3.0 Impactor File Uplink	Feb 16	047
	FSW Patch 6.3.0 Impactor, ICO Uplink and Prep Part 1	Feb 17	048
	Impactor Checkout Part 2	Feb 18	049
Yes	HRI Bakeout Heaters On (6 Htrs)	Feb 19	050
Yes	Margin	Feb 20	051
Yes	HRI Ghost Image Test 2	Feb 21	052
Yes	Impactor Checkout Part 3, ITS Quick Alignment	Feb 22	053
Yes	Impactor Checkout Part 4, S-Band, ADCS, Sep Circuits Checkout	Feb 23	054
Yes	HRI Bakeout Heaters On (8 Htrs)	Feb 24	055
Yes	Inertia Cal, Star Tracker Cal	Feb 25	056
Yes	Margin	Feb 26	057
Yes	Margin	Feb 27	058
Yes	Margin	Feb 28	059
Yes	MRI Decon Heaters Off	Mar 01	060
Yes	MRI-Star Tracker Cal, MRI Stray Light, MRI Geometric Cal	Mar 02	061
Yes	PLAR, MSA Reconfig At Ball Aerospace - disland move	Mar 03	062
Yes	Margin	Mar 04	063
Yes	Margin	Mar 05	064
Yes	Margin	Mar 06	065
Yes	ORT-8 Uplinks	Mar 07	066
Yes	ORT-8, Ghost Image Test 3	Mar 08	067
Yes	ORT-8	Mar 09	068
Yes	FSW Patch 6.3.1 Flyby File Uplink and Install	Mar 10	069
Yes	Ghost Image Test 4	Mar 11	070
Yes	Margin	Mar 12	071
Yes	Ghost Image Test 5	Mar 13	072
Yes	ITS Decon Heaters On	Mar 14	073
Yes	Ghost Image Test 6, HRI Bakeout Heaters Off, MRI/ITS Bakeout Htrs On	Mar 15	074
Yes	SCU-A Reboot, Safe Mode Recovery	Mar 16	075
Yes	Ghost Image Test 7 (AM), Instrument FSW Load, Ghost Image Test 8 (PM), HRI Decon Heaters Off	Mar 17	076
Yes	Impactor Cleanup and Thermal FP Enable, Ghost Image Test 9, HRI Decon Heaters Off	Mar 18	077
	Margin	Mar 19	078
	Margin	Mar 20	079
Yes	MRI/ITS Bakeout Htrs On, HGA Jitter Test	Mar 21	080
Yes	Update FB SCU-B B:/ Drive to FSW 6.3.1, TCM-2 Kickoff Meeting	Mar 22	081
Yes	Update FB SCU-A B:/ Drive to FSW 6.3.1	Mar 23	082
Yes	Encounter Validation, MRI Bakeout Htrs On	Mar 24	083
Yes	Margin	Mar 25	084
Yes	Margin	Mar 26	085
Yes	Margin	Mar 27	086
Yes	MRI/ITS Bakeout Htrs Off	Mar 28	087
	Margin	Mar 29	088
	FSW Patch 6.3.2 SCU-A and SCU-B	Mar 30	089
	Precise Alignments Update, MRI Opanv Photometric Cal	Mar 31	090
	Margin	Apr 01	091

	Autonav Encounter Test - Cancelled	Apr 02	092
	Margin	Apr 03	093
	Science Cal Uplinks, ORT-9 Uplink Product Pass 0 Review	Apr 04	094
Yes	Science Cal	Apr 05	095
Yes	Science Cal	Apr 06	096
Yes	Science Cal	Apr 07	097
Yes	Science Cal	Apr 08	098
	Margin	Apr 09	099
	Margin	Apr 10	100
	FSW Patch 7.0.0 Flyby File Uplink and SCU-B Install	Apr 11	101
Yes	FSW Patch 7.0.0 Flyby SCU-A Install, Shield Mode Recovery	Apr 12	102
	Encounter Risk Review 1	Apr 13	103
	Margin	Apr 14	104
	Margin	Apr 15	105
	Margin	Apr 16	106
Yes	ORT-9	Apr 17	107
Yes	ORT-9, Opanav-ADCS (FB) Attitude Estimation, HRI/MRI Alignment, HRI Stray Light	Apr 18	108
	ORT-9 Uplinks	Apr 19	109
Yes	ORT-9	Apr 20	110
Yes	ORT-9	Apr 21	111
	Margin	Apr 22	112
Yes	Opanav-ADCS (FB) Attitude Estimation, HRI/MRI Alignment, HRI Stray Light	Apr 23	113
	Margin	Apr 24	114
Yes	Opanav Detection Tempel-1	Apr 25	115
	Margin	Apr 26	116
	HRI/IR Stray Light Test	Apr 27	117
	HRI/IR Stray Light Test	Apr 28	118
	Margin	Apr 29	119
Yes	ITS Autonav Test - Saturn	Apr 30	120
Yes	Opanav/Science Imaging (Single Session)	May 01	121
	FSW Patch 7.0.0 Impactor File Uplink	May 02	122
	FSW Patch 7.0.0 Impactor Install, ITS FSW Install	May 03	123
Yes	Update Set Points for HRI Sim Bench	May 04	124
Yes	TCM-3A	May 05	125
Yes	ITS-Star Tracker Cal, ITS Stray Light, Impactor and Flyby IMU-Star Tracker Cal, Impactor S-Band Downlink Test	May 06	126
	Daily Opanav/Science Imaging	May 07	127
	Daily Opanav/Science Imaging	May 08	128
	Science Cal Uplinks	May 09	129
	Science Cal Uplinks	May 10	130
Yes	Science Cal, Encounter Risk Review 2	May 11	131
	Science Cal Uplinks	May 12	132
Yes	Science Cal Downlinks, ORT-10	May 13	133
Yes	FSW Patch 7.0.1 Flyby, ORT-10	May 14	134
Yes	Daily Opanav/Science Imaging, ORT-10	May 15	135
	Daily Opanav/Science Imaging, Transition to 100 kbps Downlink, ORT-10 Uplinks	May 16	136
Yes	Daily Opanav/Science Imaging, ORT-10	May 17	137
Yes	Daily Opanav/Science Imaging, ORT-10	May 18	138
Yes	Daily Opanav/Science Imaging, ORT-10	May 19	139
Yes	Opanav-ADCS (IMP) Attitude Estimation, IMP Star Tracker Masking Demo, IMP Time Correlation Packets	May 20	140
	Opanav-ADCS (IMP) Attitude Estimation	May 21	141

	Opanav-ADCS (IMP) Attitude Estimation	May 22	142
	Opanav-ADCS (IMP) Attitude Estimation	May 23	143
	Opanav-ADCS (IMP) Attitude Estimation	May 24	144
	Daily Opanav/Science Imaging	May 25	145
	VIS, IR LUT Updates, Daily Opanav/Science Imaging	May 26	146
	VIS, IR LUT Updates, Daily Opanav/Science Imaging	May 27	147
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	Daily Opanav/Science Imaging	May 29	149
	Daily Opanav/Science Imaging	May 30	150
	Opanav-ADCS (IMP) Attitude Estimation, Daily Opanav/Science Imaging	May 31	151
	Opanav-ADCS (IMP) Attitude Estimation, IMP TIB Setpoints, Daily Opanav/Science Imaging, IMP Time Correlation Packets	Jun 01	152
	Opanav-ADCS (IMP) Attitude Estimation, Daily Opanav/Science Imaging	Jun 02	153
	Autonav Eng. Imaging (MRI/HRI), Daily Opanav/Science Imaging	Jun 03	154
	FSW Patch 8.0.0 Flyby File Uplink and SCU-B Install	Jun 04	155
Yes	FSW Patch 8.0.0 Flyby SCU-A Install, Shield Mode Recovery	Jun 05	156
	Science Cal Uplinks, Daily Opanav/Science Imaging, Divert D.1 Design	Jun 06	157
	Science Cal, Divert D.1 Design	Jun 07	158
Yes	Science Cal, Albedo Selection Mini-ORT	Jun 08	159
	Science Cal	Jun 09	160
	Autonav Eng. Imaging (ITS), Daily Opanav/Science Imaging	Jun 10	161
	FSW Patch 8.0.0 Impactor Uplink and Install	Jun 11	162
	Daily Opanav/Science Imaging, FSW 8.0.0 Contingency	Jun 12	163
Yes	Daily Opanav/Science Imaging, FSW 8.0.0 Contingency, Transition to 40 kbps Downlink, ORT-11	Jun 13	164
Yes	Science Mini-Cal, Daily Opanav/Science Imaging, ORT-11	Jun 14	165
	Impactor TCM Catbed Heater Setpoints, Daily Opanav/Science Imaging	Jun 15	166
	IR LUT Update, Daily Opanav/Science Imaging	Jun 16	167
	Daily Opanav/Science Imaging	Jun 17	168
	Daily Opanav/Science Imaging	Jun 18	169
	Autonav Eng. Imaging (MRI/HRI), Daily Opanav/Science Imaging	Jun 19	170
	NVM Cleanup, Uplink Encounter Approach Products, Daily Opanav/Science Imaging	Jun 20	171
	FSW Patch 8.0.1 Flyby, Daily Opanav/Science Imaging	Jun 21	172
	FSW Patch 8.0.1 Impactor, Daily Opanav/Science Imaging	Jun 22	173
	TCM-3B	Jun 23	174
	Uplink Encounter Products, Daily Opanav/Science Imaging	Jun 24	175
	Impactor Checkout, Daily Opanav/Science Imaging	Jun 25	176
	Encounter Approach Background Sequence Activation, Encounter Critical Sequence Activation, Daily Opanav/Science Imaging	Jun 26	177
	Continuous Comet Imaging	Jun 27	178
	Continuous Comet Imaging	Jun 28	179
	Continuous Comet Imaging	Jun 29	180
	Continuous Comet Imaging	Jun 30	181
	Continuous Comet Imaging	Jul 01	182
	Continuous Comet Imaging	Jul 02	183
Yes	Continuous Comet Imaging, TCM-5, Impactor Separation, Flyby Divert	Jul 03	184
Yes	Impact!	Jul 04	185
Yes	Lookback Imaging	Jul 05	186
Yes	Post-Encounter Cleanup, Science Cal Uplinks	Jul 06	187
Yes	Science Cal	Jul 07	188
Yes	Science Cal	Jul 08	189
Yes	Science Cal	Jul 09	190
Yes	Science Cal	Jul 10	191