MISSION NOMINAL TIMELINE			
	Time from Launch (sec)		
Event	**Window Open**	**Window Middle**	**Window Close**
Stage 1 Motor Ignition	0	0	0
Lift Off	2.2	2.2	2.2
Stage 1 MECO	234.4	234.4	234.4
Stage 1 Separation	240.4	240.4	240.4
Fairing Separation	268.9	270.7	269.9
Stage 1/2 Interstage Separation	273.9	275.7	274.9
Stage 2 Ignition	281.4	283.2	282.4
Stage 2 Burn Out	447.4	449.7	448.7
Payload Separation (Orbit Insertion)	567.4	569.7	568.7

Nominal mission timeline for Open, Middle, and Close window trajectories are summarized here. More detailed mission timelines are provided below.

	Window Open				
Event	**Time (sec)**	**Altitude (km)**	**Latitude (deg N)**	**Longitude (deg E)**	**Velocity (m/s)**
Stage 1 Ignition	0	-0.01	37.834	-75.488	0
Stage 1 Throttle Down	205.79	72.292	37.222	-74.302	2667.431
Stage 1 Shutdown	234.39	100.113	36.789	-73.504	3668.146
Stage Separation	240.39	106.118	36.683	-73.311	3662.858
Enable RCS	241.89	107.578	36.656	-73.263	3659.415
Enable PEG Steering	246.39	111.863	36.576	-73.12	3648.312
Disable RCS for Fairing Sep	268.61	130.884	36.179	-72.419	3598.8
Fairing Separation	268.89	131.101	36.174	-72.41	3598.233
Re-Enable RCS After Fairing Sep	270.89	132.635	36.139	-72.348	3594.249
Fairing Sep Detection	271.39	133.014	36.13	-72.332	3593.258
Disable RCS for Interstage Sep	273.81	134.823	36.086	-72.257	3588.524
Stage 1/2 Interstage Separation	273.89	134.882	36.085	-72.254	3588.369
Stage 2 TVC Enable	280.89	139.876	35.959	-72.037	3575.328
Stage 2 Ignition	281.39	140.219	35.95	-72.022	3574.428
Stage 2 Tail-Off	439.57	214.151	31.322	-65.705	7455.368
Stage 2 Coast	447.42	214.122	30.955	-65.289	7508.314
Orient For Payload Sep	457.42	214.053	30.482	-64.763	7510.195
Disable RCS For Payload Sep	567.34	213.672	25.143	-59.311	7513.967
Payload Separation	567.42	213.672	25.139	-59.307	7513.967
Re-Enable RCS After Payload Sep	569.42	213.673	25.039	-59.213	7513.443
Orient For CCAM	570.42	213.673	24.99	-59.166	7513.476
Contamination/Collision Avoidance Manuever	867.42	217.215	9.644	-46.589	7509.533
RCS Tank Depletion	987.42	220.595	3.259	-41.979	7504.601
Post RCS Blowdown Coast	1077.42	223.825	-1.545	-38.575	7500.598
End Of Mission	1087.42	224.219	-2.078	-38.196	7500.109

	Window Middle				
Event	**Time (sec)**	**Altitude (km)**	**Latitude (deg N)**	**Longitude (deg E)**	**Velocity (m/s)**
Stage 1 Ignition	0	-0.01	37.834	-75.488	0
Stage 1 Throttle Down	205.79	72.55	37.126	-74.394	2664.769
Stage 1 Shutdown	234.39	100.581	36.628	-73.662	3664.787
Stage Separation	240.39	106.635	36.505	-73.486	3659.36
Enable RCS	241.89	108.108	36.475	-73.442	3655.882
Enable PEG Steering	246.39	112.429	36.383	-73.31	3644.678
Disable RCS for Fairing Sep	270.43	133.033	35.892	-72.617	3590.985
Fairing Separation	270.71	133.248	35.886	-72.609	3590.422
Re-Enable RCS After Fairing Sep	272.71	134.771	35.845	-72.552	3586.463
Fairing Sep Detection	273.21	135.147	35.835	-72.538	3585.478
Disable RCS for Interstage Sep	275.63	136.942	35.785	-72.469	3580.774
Stage 1/2 Interstage Separation	275.71	137	35.783	-72.467	3580.621
Stage 2 TVC Enable	282.71	141.951	35.64	-72.268	3567.672
Stage 2 Ignition	283.21	142.291	35.629	-72.254	3566.779
Stage 2 Tail-Off	441.37	220.918	30.753	-66.257	7449.448
Stage 2 Coast	449.73	220.897	30.36	-65.82	7502.686
Orient For Payload Sep	459.73	220.835	29.885	-65.302	7504.335
Disable RCS For Payload Sep	569.65	220.501	24.527	-59.924	7507.99
Payload Separation	569.73	220.501	24.523	-59.921	7507.991
Re-Enable RCS After Payload Sep	571.73	220.502	24.423	-59.828	7507.465
Orient For CCAM	572.73	220.503	24.373	-59.781	7507.498
Contamination/Collision Avoidance Manuever	869.73	223.955	9.016	-47.321	7503.666
RCS Tank Depletion	989.73	227.205	2.637	-42.731	7498.894
Post RCS Blowdown Coast	1079.73	230.299	-2.158	-39.334	7495.097
End Of Mission	1089.73	230.676	-2.691	-38.956	7494.64

	Window Close				
Event	**Time (sec)**	**Altitude (km)**	**Latitude (deg N)**	**Longitude (deg E)**	**Velocity (m/s)**
Stage 1 Ignition	0	-0.01	37.834	-75.488	0
Stage 1 Throttle Down	205.79	72.35	37.037	-74.499	2664.585
Stage 1 Shutdown	234.39	100.17	36.477	-73.838	3665.236
Stage Separation	240.39	106.169	36.34	-73.679	3659.951
Enable RCS	241.89	107.628	36.305	-73.64	3656.509
Enable PEG Steering	246.39	111.907	36.203	-73.522	3645.414
Disable RCS for Fairing Sep	269.66	131.69	35.671	-72.918	3593.873
Fairing Separation	269.94	131.904	35.664	-72.911	3593.313
Re-Enable RCS After Fairing Sep	271.94	133.418	35.619	-72.86	3589.38
Fairing Sep Detection	272.44	133.792	35.607	-72.847	3588.401
Disable RCS for Interstage Sep	274.86	135.575	35.552	-72.785	3583.728
Stage 1/2 Interstage Separation	274.94	135.634	35.55	-72.783	3583.576
Stage 2 TVC Enable	281.94	140.552	35.39	-72.605	3570.72
Stage 2 Ignition	282.44	140.89	35.378	-72.592	3569.833
Stage 2 Tail-Off	440.62	214.329	30.256	-66.901	7454.87
Stage 2 Coast	448.73	214.302	29.871	-66.481	7507.955
Orient For Payload Sep	458.73	214.237	29.394	-65.967	7509.71
Disable RCS For Payload Sep	568.65	213.903	24.004	-60.631	7513.393
Payload Separation	568.73	213.903	24	-60.628	7513.394
Re-Enable RCS After Payload Sep	570.73	213.905	23.9	-60.536	7512.868
Orient For CCAM	571.73	213.906	23.85	-60.489	7512.9
Contamination/Collision Avoidance Manuever	868.73	217.57	8.435	-48.085	7508.782
RCS Tank Depletion	988.73	220.984	2.042	-43.497	7503.803
Post RCS Blowdown Coast	1078.73	224.228	-2.76	-40.093	7499.776
End Of Mission	1088.73	224.623	-3.293	-39.714	7499.286