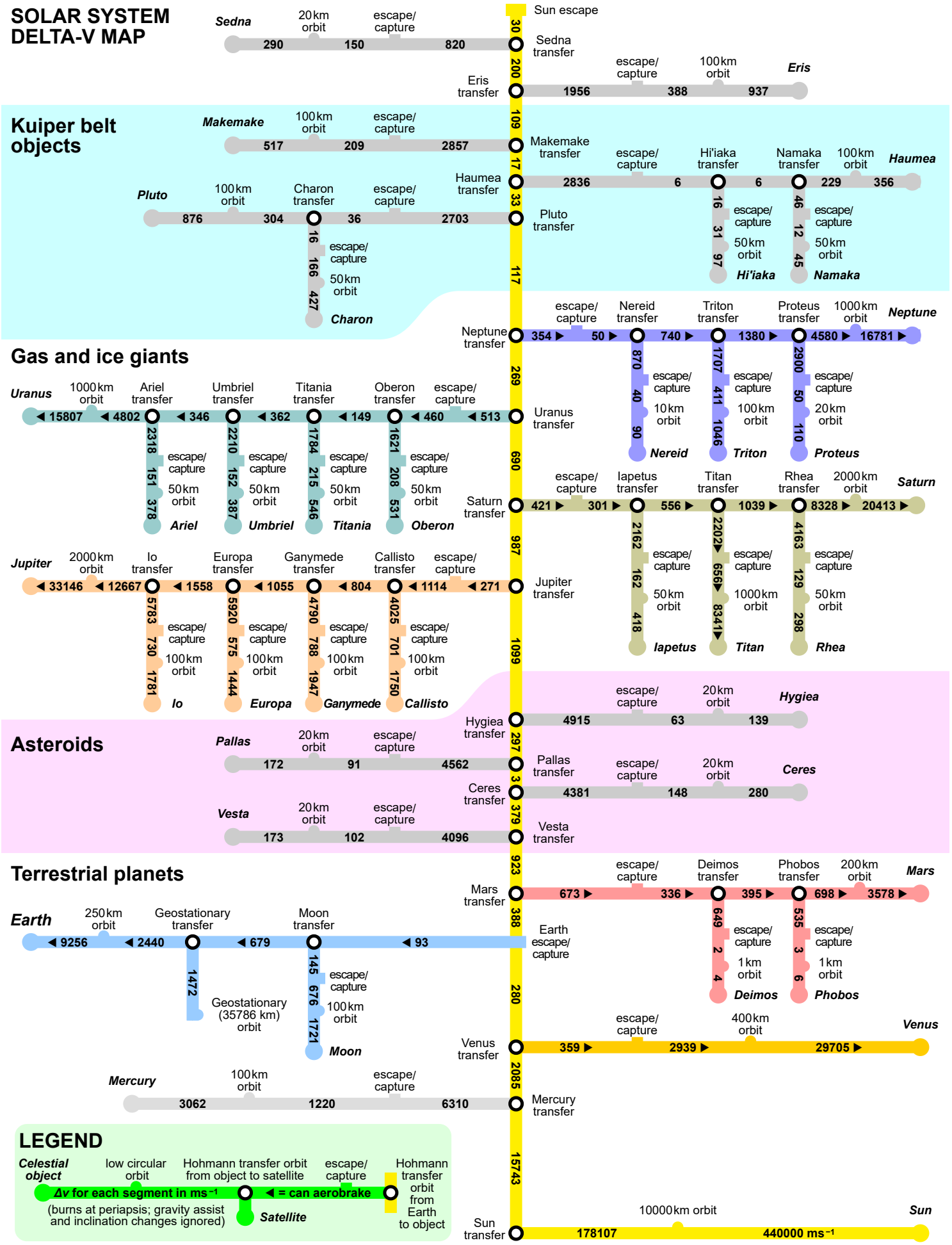
SOLAR SYSTEM DELTA-V MAP
Sun escape
Sedna
20 km orbit
escape/ capture
290
150
820
30
Sedna transfer
200
Eris transfer
escape/ capture
100 km orbit
Eris
1956
388
937
Kuiper belt objects
Makemake
100 km orbit
escape/ capture
517
209
2857
109
Makemake transfer
17
Haumea transfer
escape/ capture
Hi'iaka transfer
Namaka transfer
100 km orbit
Haumea
2836
6
6
229
356
Pluto
100 km orbit
Charon transfer
escape/ capture
876
304
36
2703
33
Pluto transfer
16
166
427
escape/ capture
50 km orbit
Charon
16
31
97
escape/ capture
50 km orbit
Hi'iaka
46
12
45
escape/ capture
50 km orbit
Namaka
117
Gas and ice giants
escape/ capture
Nereid transfer
Triton transfer
Proteus transfer
1000 km orbit
Neptune
Neptune transfer
354
50
740
1380
4580
16781
870
40
90
escape/ capture
10 km orbit
Nereid
1707
411
1046
escape/ capture
100 km orbit
Triton
2900
50
110
escape/ capture
20 km orbit
Proteus
269
Uranus
1000 km orbit
Ariel transfer
Umbriel transfer
Titania transfer
Oberon transfer
escape/ capture
Uranus transfer
15807
4802
346
362
149
460
513
2318
151
378
escape/ capture
50 km orbit
Ariel
2210
152
387
escape/ capture
50 km orbit
Umbriel
1784
215
546
escape/ capture
50 km orbit
Titania
1621
208
531
escape/ capture
50 km orbit
Oberon
690
escape/ capture
Iapetus transfer
Titan transfer
Rhea transfer
2000 km orbit
Saturn
Saturn transfer
421
301
556
1039
8328
20413
2162
162
418
escape/ capture
50 km orbit
Iapetus
2202
656
8341
escape/ capture
1000 km orbit
Titan
4163
129
298
escape/ capture
50 km orbit
Rhea
Jupiter
2000 km orbit
Io transfer
Europa transfer
Ganymede transfer
Callisto transfer
escape/ capture
Jupiter transfer
33146
12667
1558
1055
804
1114
271
5783
730
1781
escape/ capture
100 km orbit
Io
5920
575
1444
escape/ capture
100 km orbit
Europa
4790
788
1947
escape/ capture
100 km orbit
Ganymede
4025
701
1750
escape/ capture
100 km orbit
Callisto
987
1099
Asteroids
escape/ capture
20 km orbit
Hygiea
Hygiea transfer
4915
63
139
Pallas
20 km orbit
escape/ capture
172
91
4562
297
Pallas transfer
escape/ capture
20 km orbit
Ceres
Ceres transfer
4381
148
280
3
Vesta
20 km orbit
escape/ capture
173
102
4096
379
Vesta transfer
923
Terrestrial planets
escape/ capture
Deimos transfer
Phobos transfer
200 km orbit
Mars
Mars transfer
673
336
395
698
3578
649
2
4
escape/ capture
1 km orbit
Deimos
535
3
6
escape/ capture
1 km orbit
Phobos
388
Earth
250 km orbit
Geostationary transfer
Moon transfer
Earth escape/ capture
9256
2440
679
93
1472
Geostationary (35786 km) orbit
145
676
1721
escape/ capture
100 km orbit
Moon
280
escape/ capture
400 km orbit
Venus
Venus transfer
359
2939
29705
Mercury
100 km orbit
escape/ capture
3062
1220
6310
2085
Mercury transfer
LEGEND
Celestial object
low circular orbit
Hohmann transfer orbit from object to satellite
escape/ capture
Hohmann transfer orbit from Earth to object
Δv for each segment in ms⁻¹
◀ = can aerobrake
(burns at periapsis; gravity assist and inclination changes ignored)
Satellite
15743
10000 km orbit
Sun
Sun transfer
178107
440000 ms⁻¹