

Rocket Trajectory Nomograms

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Model rockets, A-C

Model rockets D-E

Mid Power, F-G

Small High Power, H-I

2inch High Power, I-J

3inch High Power, I-J

4inch High Power, J-K

6inch High Power, K-L

7.5inch High Power

Large rockets

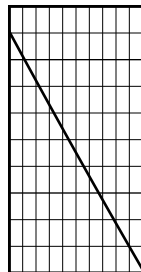
A-C	D-E	F-G	H-I	2", I-J	3", I-J	4", J-K	6", K-L	7.5"	X
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Kosdon-by-Aerotech

G135R

$I_{tot} = 143.7 \text{ Ns}$
 $F_{avg} = 137.0 \text{ N}$
 $t_{burn} = 1.05 \text{ s}$
 $d = 29 \text{ mm}$

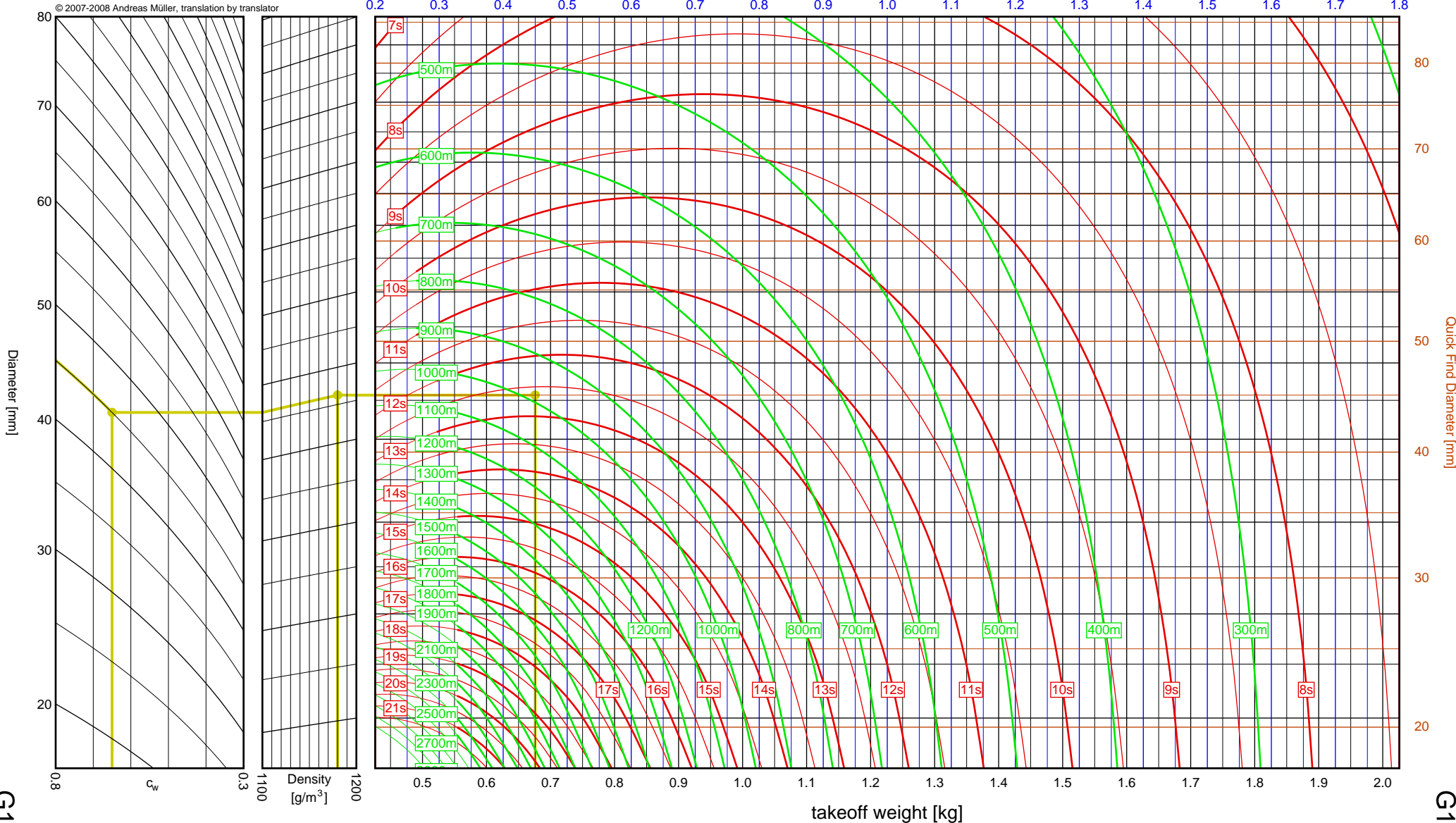
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 45mm, drag = 0.65, density = 1180 g/m³, weight = 0.676kg
 Results: time to apogee: 12.6s, expected altitude: 985m

empty weight [kg]



F-G

3

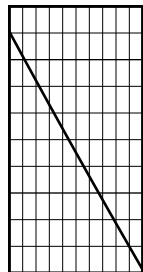
G135R

Kosdon-by-Aerotech

G82W

$I_{tot} = 143.9 \text{ Ns}$
 $F_{avg} = 73.4 \text{ N}$
 $t_{burn} = 1.96 \text{ s}$
 $d = 29 \text{ mm}$

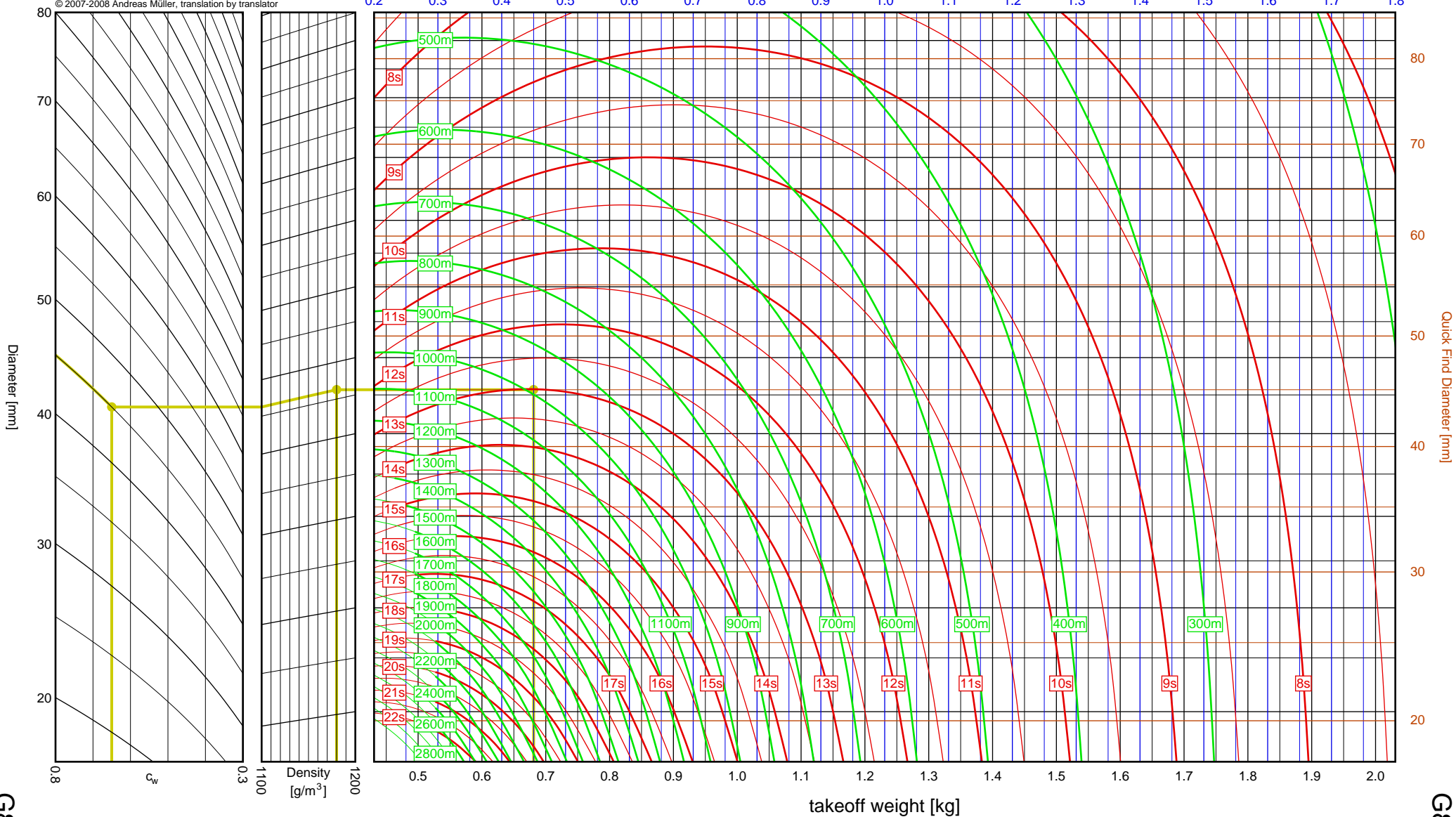
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 45mm, drag = 0.65, density = 1180 g/m³, weight = 0.681kg
 Results: time to apogee: 13.0s, expected altitude: 991m

empty weight [kg]



F-G

3

G82W

Quick Find Diameter [mm]

Diameter [mm]

c_w

Density [g/m³]

takeoff weight [kg]

20

30

40

50

60

70

80

80

70

60

50

40

30

20

100

1200

0.8

0.3

0.2

0.3

0.4

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

500m

600m

700m

800m

900m

1000m

1100m

1200m

1300m

1400m

1500m

1600m

1700m

1800m

1900m

2000m

2200m

2400m

2600m

2800m

17s

16s

15s

14s

13s

12s

11s

10s

9s

8s

1100m

900m

700m

600m

500m

400m

300m

11s

10s

9s

8s

7s

6s

5s

4s

3s

2s

1s

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

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1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

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1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

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1.0

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1.4

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1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

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1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

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1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

1.3

1.4

1.5

1.6

1.7

1.8

1.9

2.0

0.5

0.6

0.7

0.8

0.9

1.0

1.1

1.2

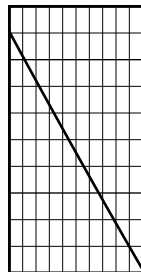
1.3

Kosdon-by-Aerotech

H225R

$I_{tot} = 242.7 \text{ Ns}$
 $F_{avg} = 216.5 \text{ N}$
 $t_{burn} = 1.12 \text{ s}$
 $d = 29 \text{ mm}$

Data source:
Aerotech



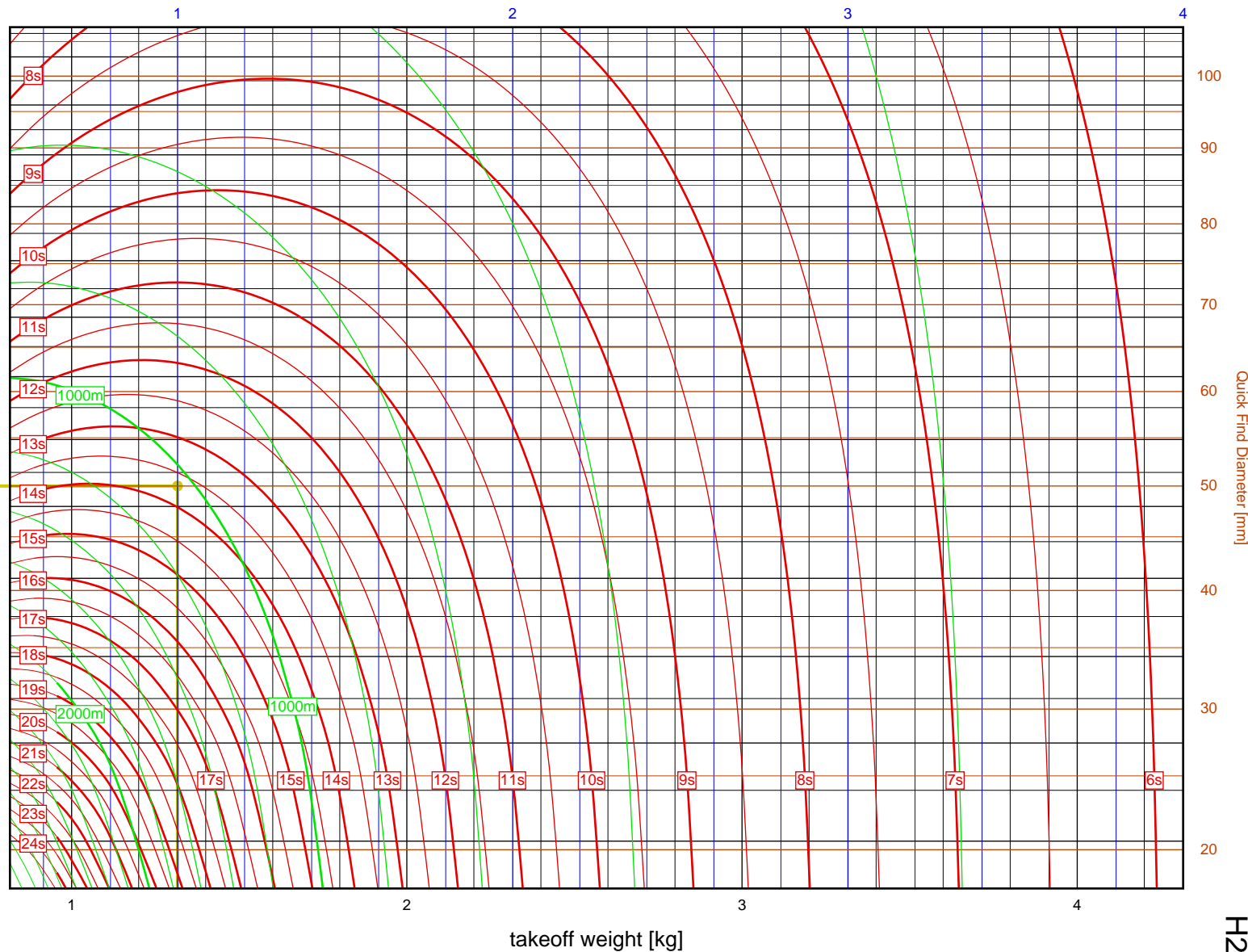
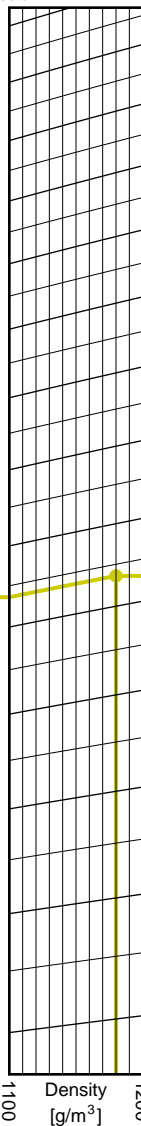
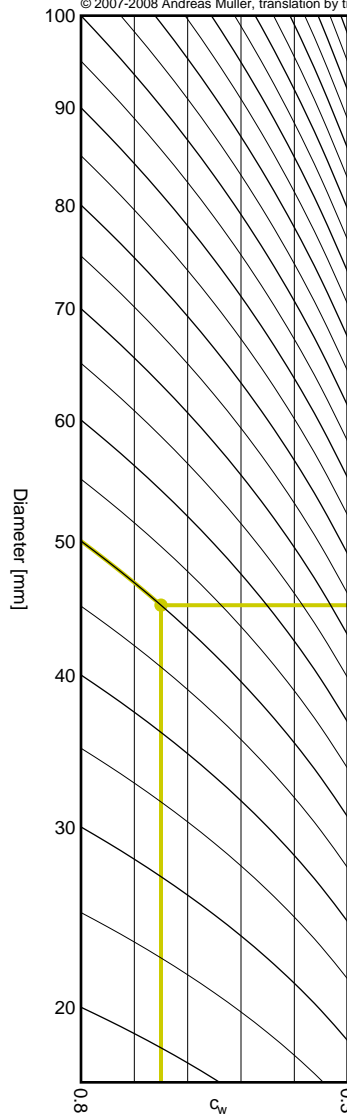
Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m^3 , weight = 1.316kg
 Results: time to apogee: 13.7s, expected altitude: 1037m

empty weight [kg]

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H-I

4

Quick Find Diameter [mm]

H225R

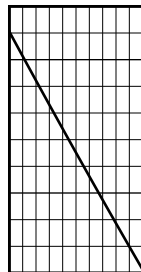
H225R

Kosdon-by-Aerotech

H130W

$I_{tot} = 247.8 \text{ Ns}$
 $F_{avg} = 129.8 \text{ N}$
 $t_{burn} = 1.91 \text{ s}$
 $d = 29 \text{ mm}$

Data source:
Aerotech



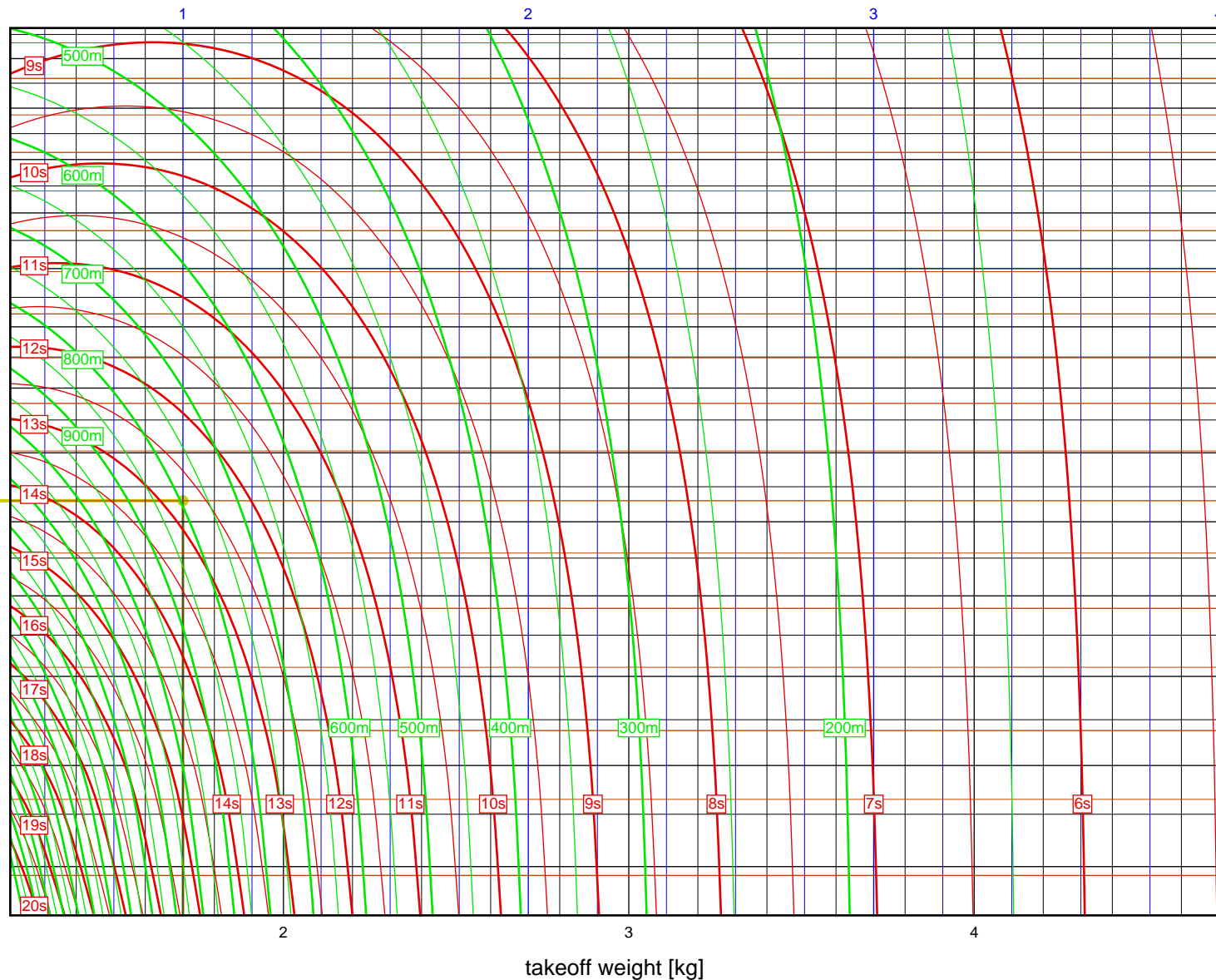
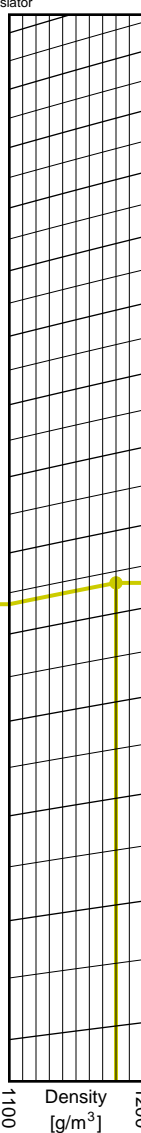
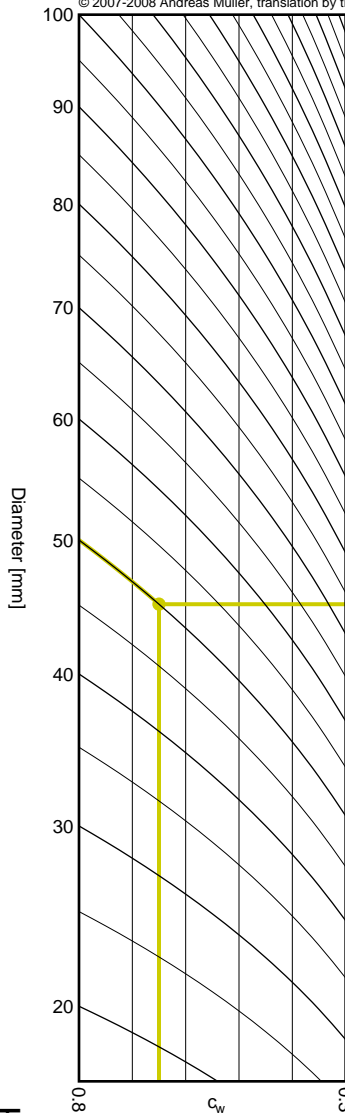
Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m³, weight = 1.709kg
 Results: time to apogee: 12.8s, expected altitude: 795m

empty weight [kg]

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Quick Find Diameter [mm]

H130W

H-I

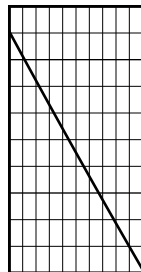
4

Kosdon-by-Aerotech

I170S

I_{tot} = 374.0 Ns
 F_{avg} = 175.6 N
 t_{burn} = 2.13 s
 d = 38 mm

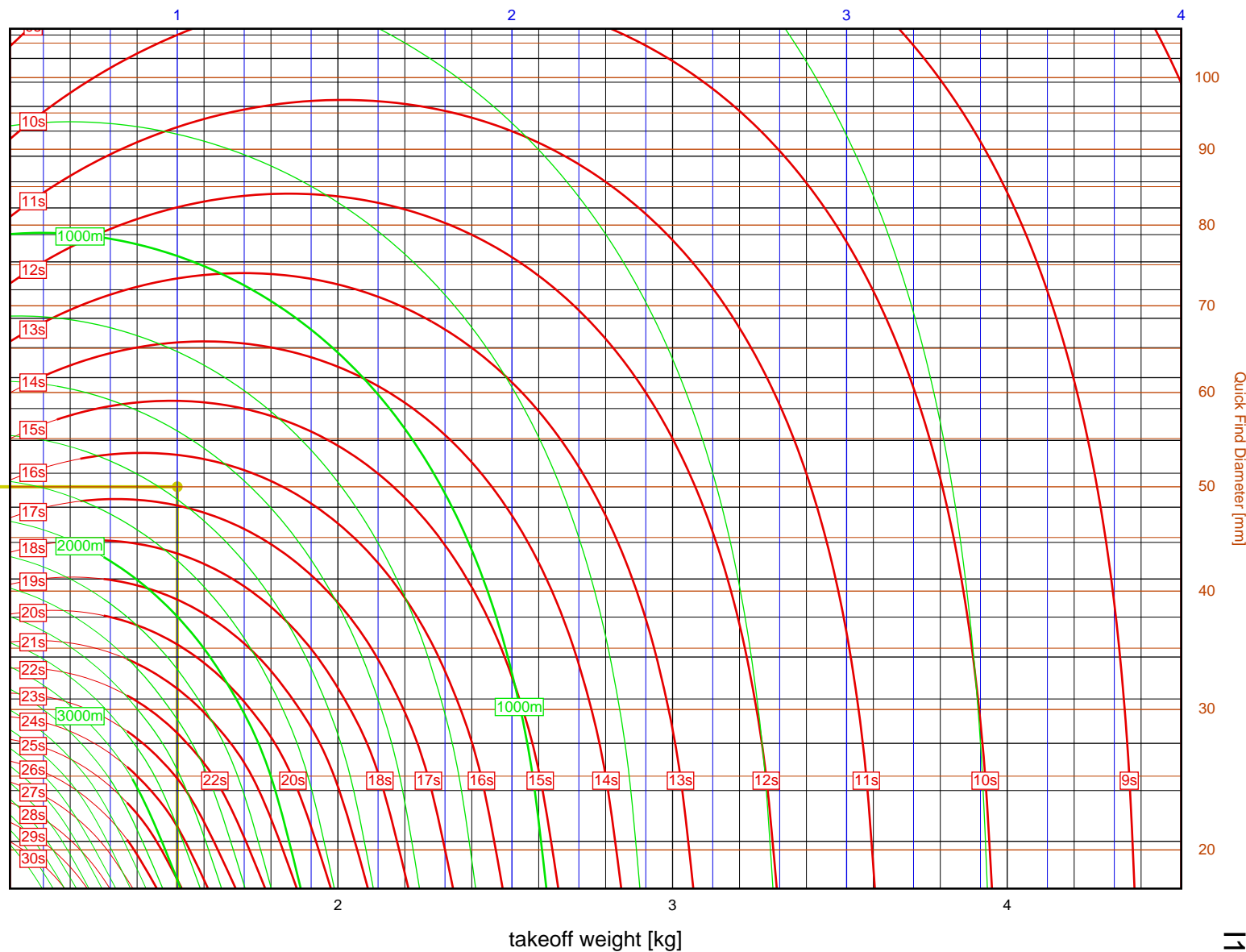
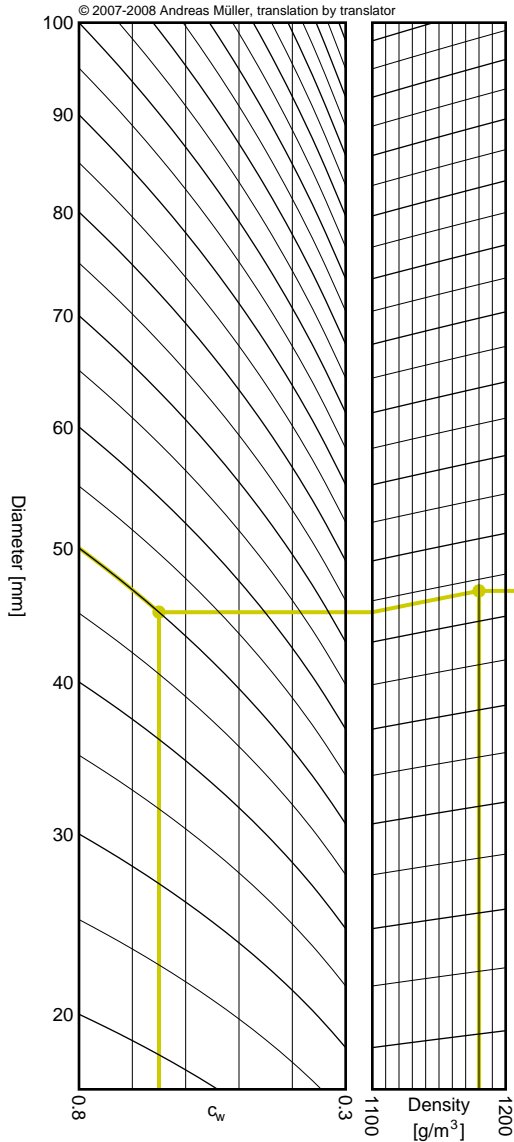
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m³, weight = 1.520kg
Results: time to apogee: 16.6s, expected altitude: 1562m

empty weight [kg]



H-I

4

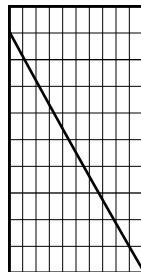
I170S

Kosdon-by-Aerotech

I301W

I_{tot} = 590.0 Ns
 F_{avg} = 302.2 N
 t_{burn} = 1.95 s
 d = 38 mm

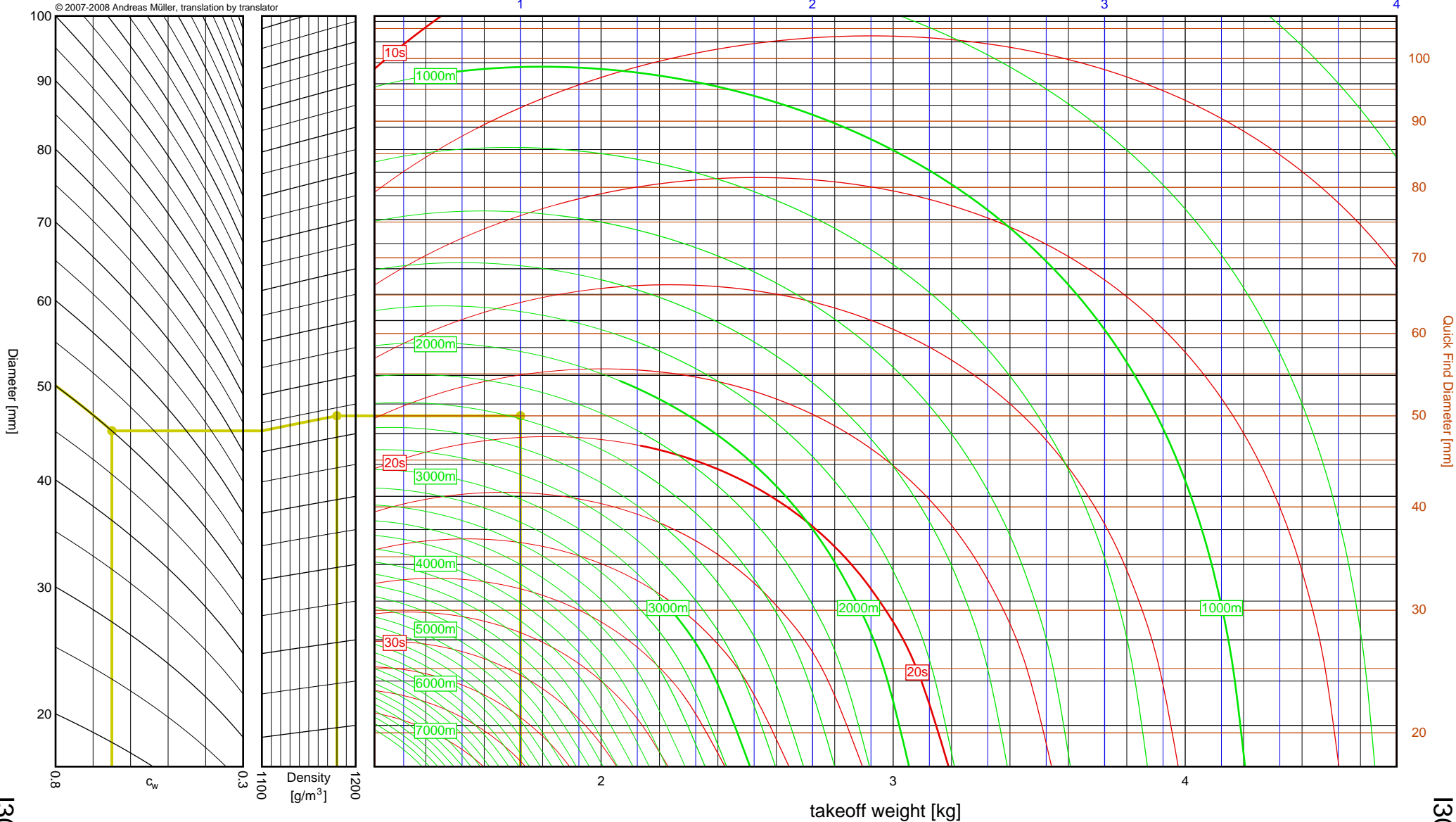
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m³, weight = 1.724kg
Results: time to apogee: 19.3s, expected altitude: 2383m

empty weight [kg]



H-I

4

I301W

Quick Find Diameter [mm]

100
90
80
70
60
50
40
30
20

4

3

2

1

takeoff weight [kg]

4

20s

2000m

3000m

4000m

3000m

20s

2000m

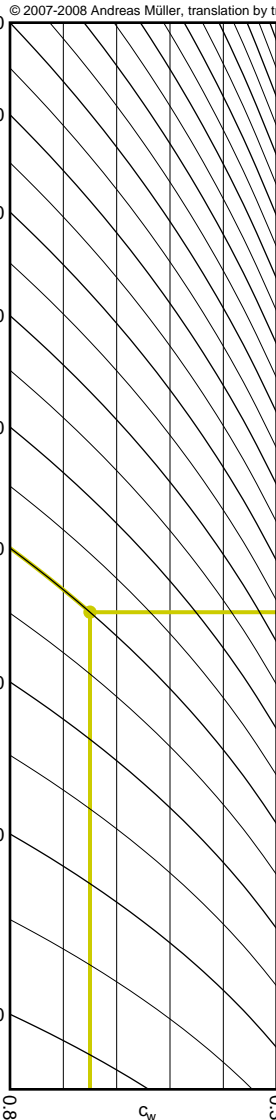
1000m

10s

Diameter [mm]

c_w

Density
[g/m³]



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4-4

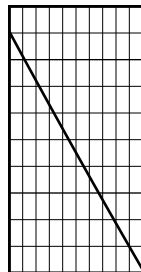
I301W

Kosdon-by-Aerotech

I550R

$I_{tot} = 591.3 \text{ Ns}$
 $F_{avg} = 543.0 \text{ N}$
 $t_{burn} = 1.09 \text{ s}$
 $d = 38 \text{ mm}$

Data source:
Aerotech

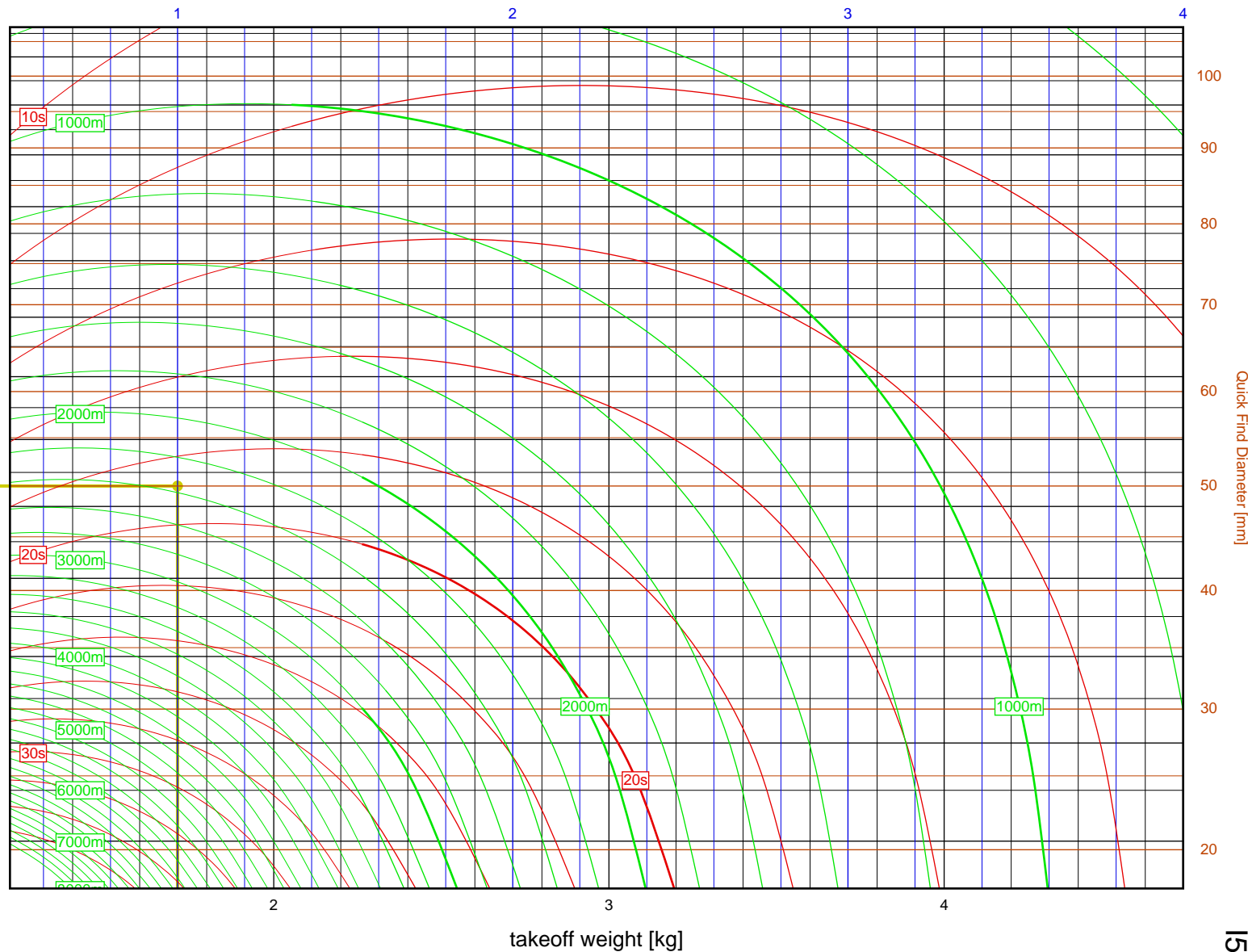
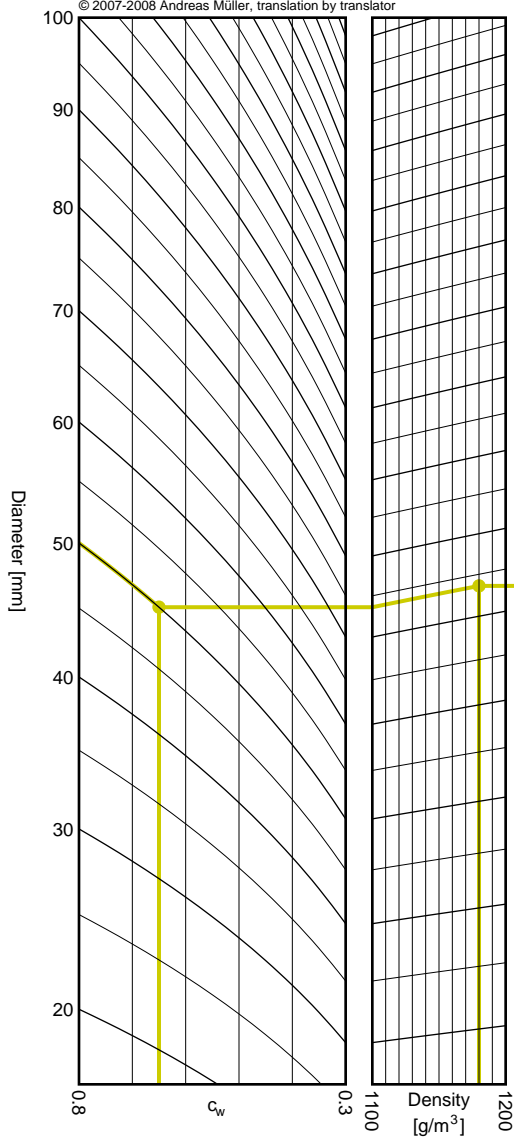


1000
500

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m³, weight = 1.713kg
 Results: time to apogee: 18.8s, expected altitude: 2363m

empty weight [kg]



H-I

4

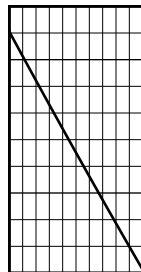
I550R

Kosdon-by-Aerotech

I170S

$I_{tot} = 374.0 \text{ Ns}$
 $F_{avg} = 175.6 \text{ N}$
 $t_{burn} = 2.13 \text{ s}$
 $d = 38 \text{ mm}$

Data source:
Aerotech



Launch site altitude [m ASL]

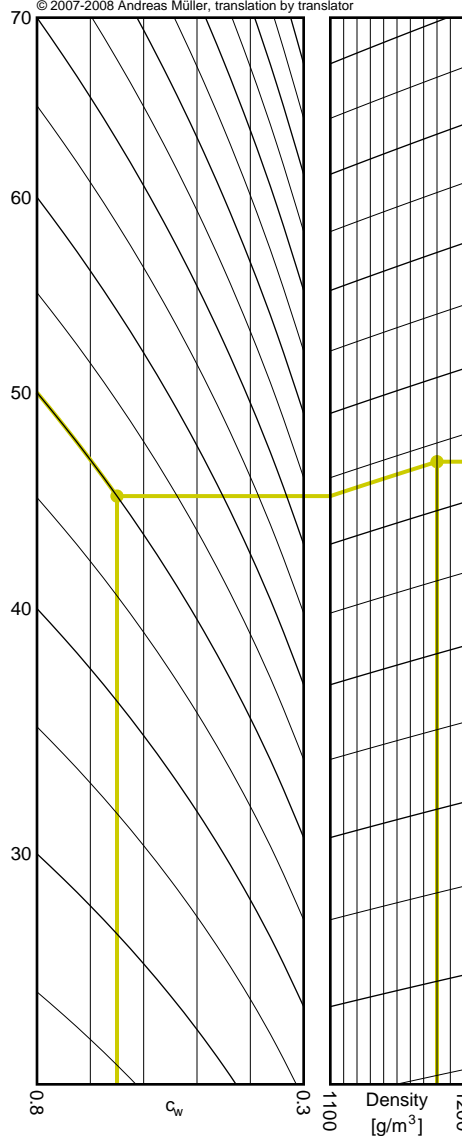
1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m³, weight = 3.020kg
 Results: time to apogee: 12.1s, expected altitude: 642m

empty weight [kg]

2 3 4 5 6

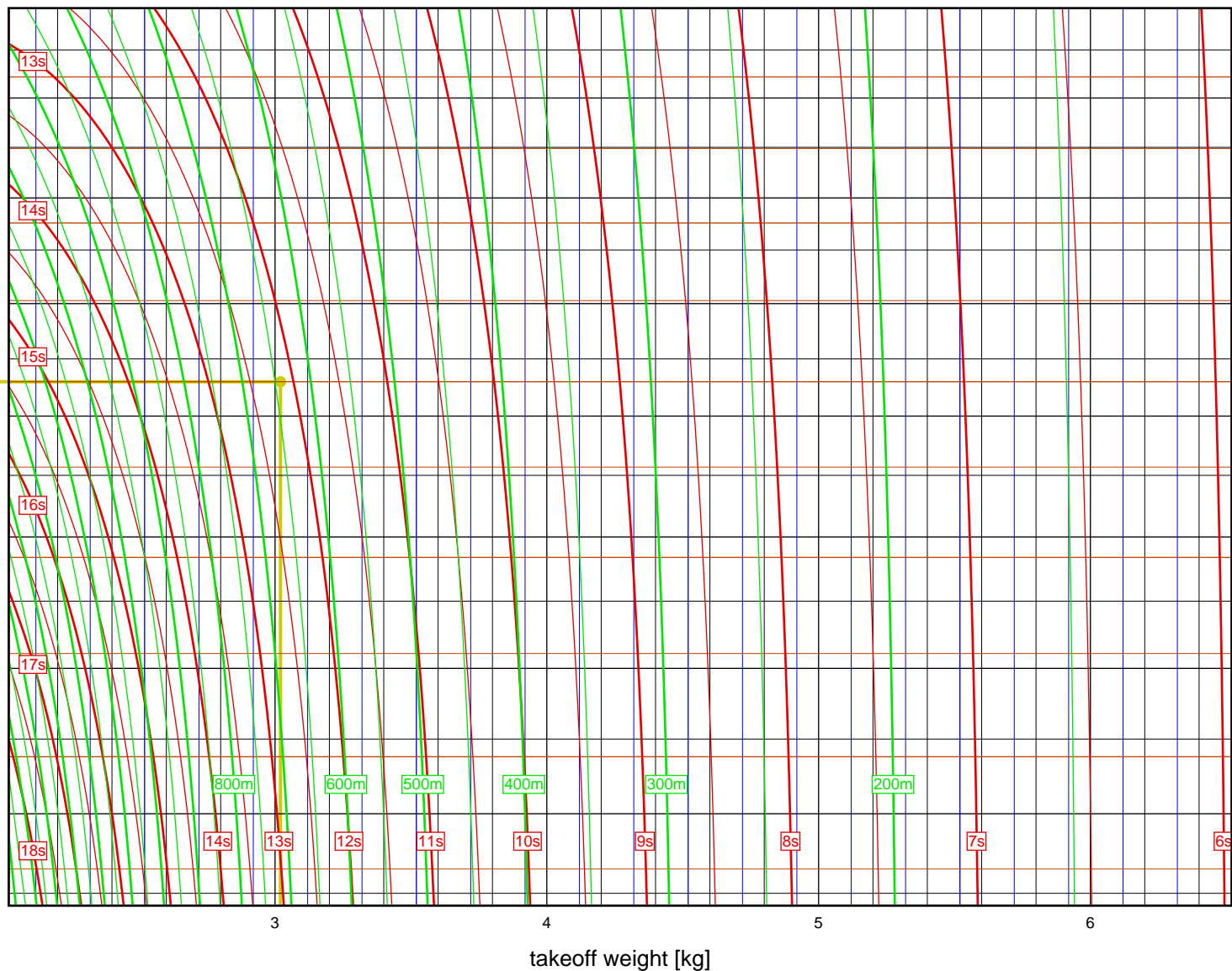
70



Diameter [mm]

c_w

Density [g/m³]



takeoff weight [kg]

70

60

50

40

30

20

10

Quick Find Diameter [mm]

2", I-J

I170S

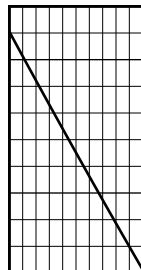
I170S

Kosdon-by-Aerotech

I301W

$I_{tot} = 590.0 \text{ Ns}$
 $F_{avg} = 302.2 \text{ N}$
 $t_{burn} = 1.95 \text{ s}$
 $d = 38 \text{ mm}$

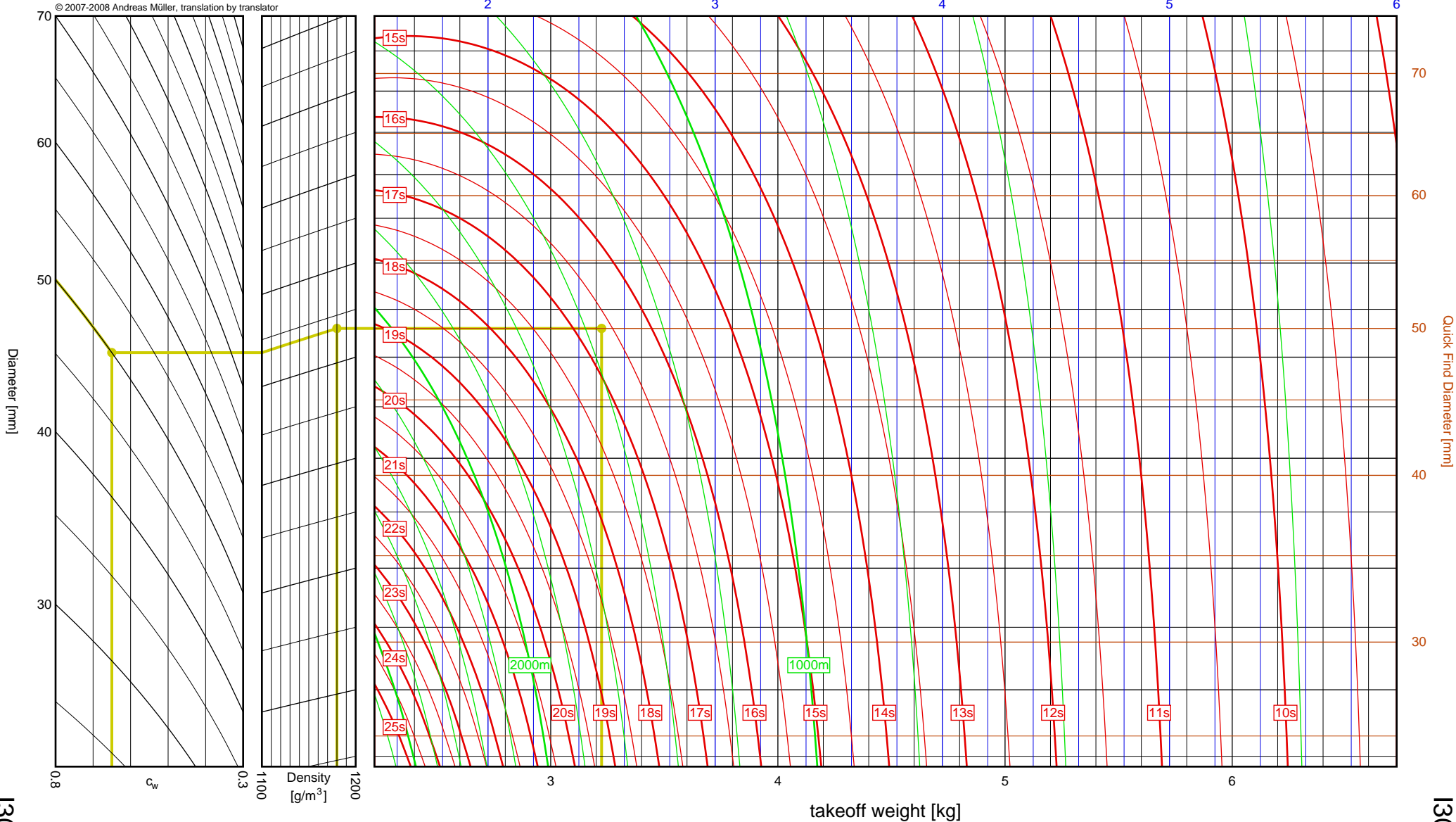
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m³, weight = 3.224kg
Results: time to apogee: 16.6s, expected altitude: 1356m

empty weight [kg]



2", I-J

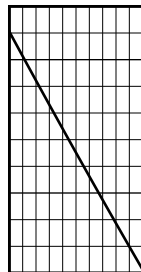
I301W

Kosdon-by-Aerotech

I550R

I_{tot} = 591.3 Ns
 F_{avg} = 543.0 N
 t_{burn} = 1.09 s
 d = 38 mm

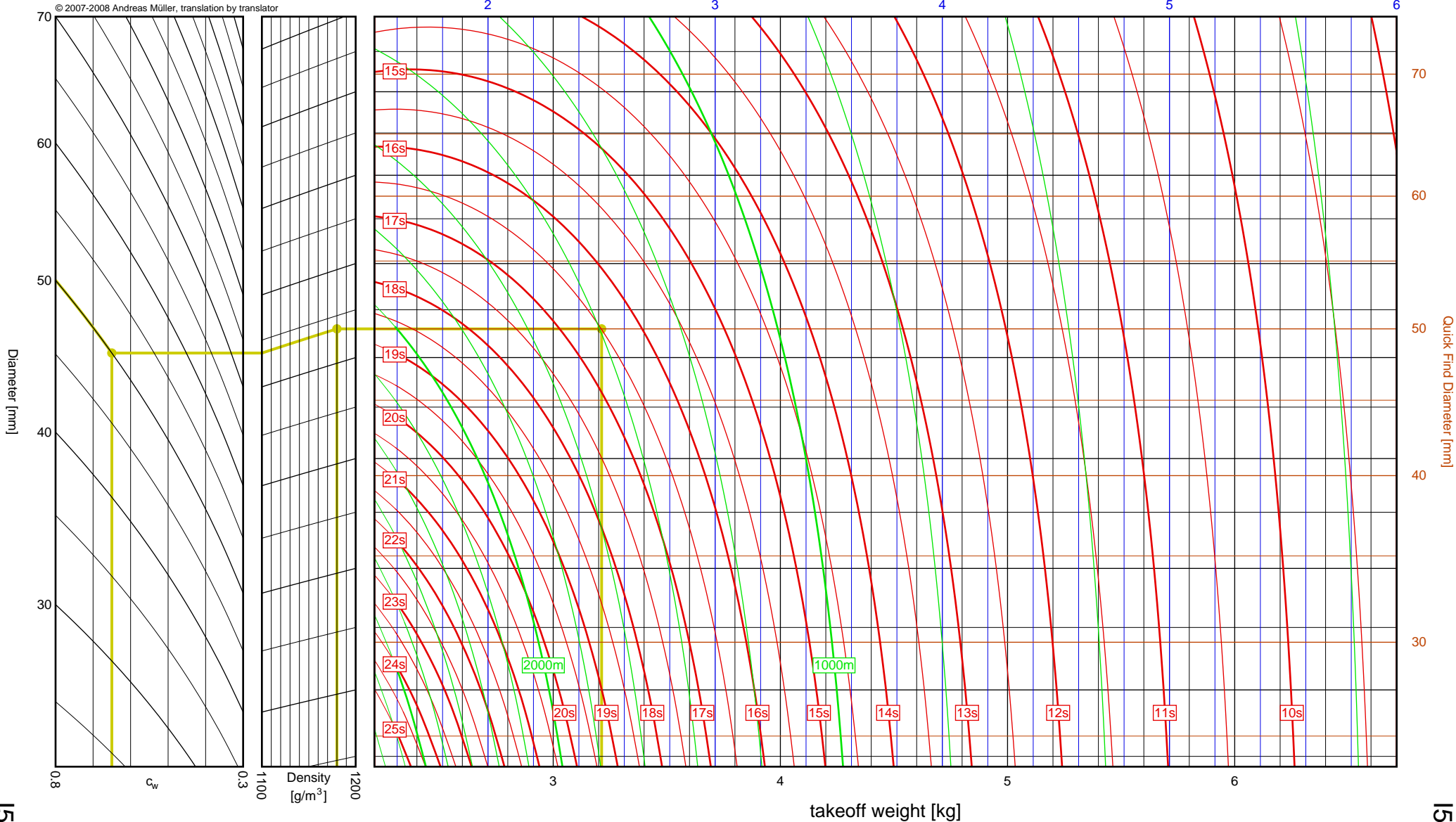
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m³, weight = 3.213kg
Results: time to apogee: 16.5s, expected altitude: 1395m

empty weight [kg]



2", I-J

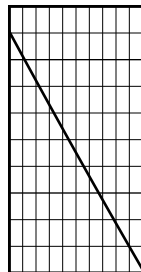
I550R

Kosdon-by-Aerotech

J740G

$I_{tot} = 665.1 \text{ Ns}$
 $F_{avg} = 788.1 \text{ N}$
 $t_{burn} = 0.84 \text{ s}$
 $d = 38 \text{ mm}$

Data source:
Aerotech

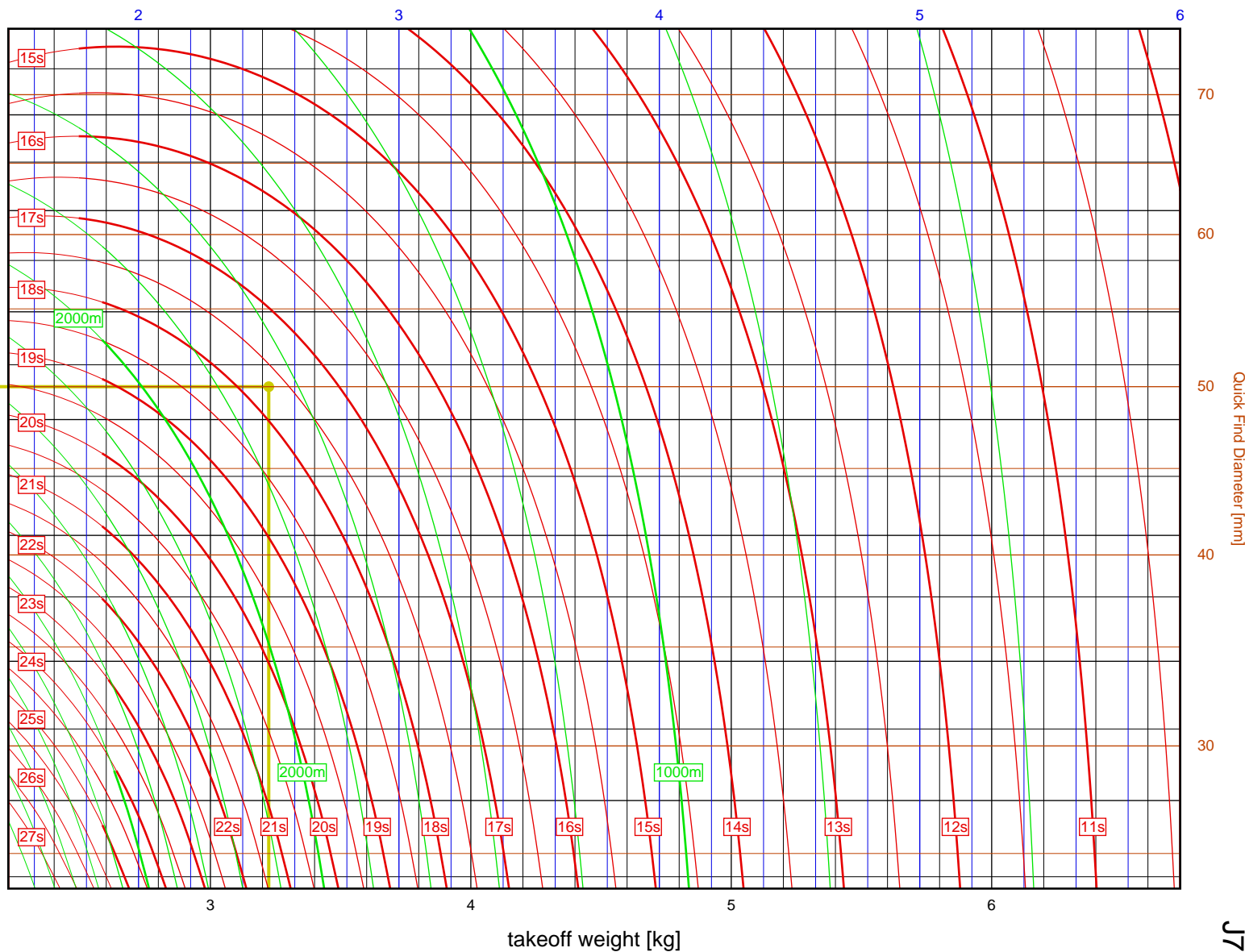
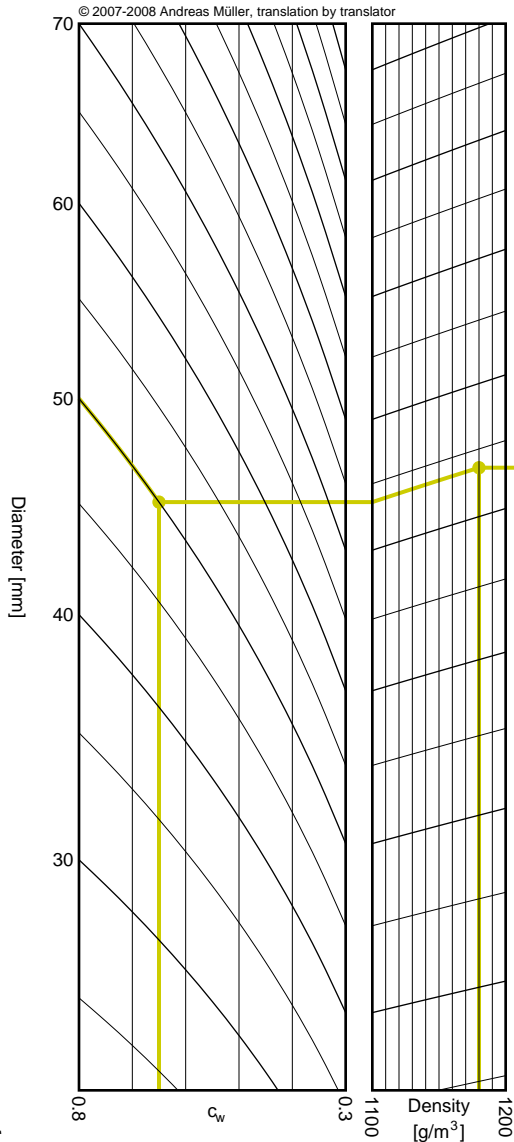


1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 50mm, drag = 0.65, density = 1180 g/m^3 , weight = 3.224kg

Results: time to apogee: 17.7s, expected altitude: 1672m

empty weight [kg]



2", I-J

Quick Find Diameter [mm]

J740G

J740G

5-4

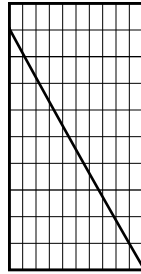
5

Kosdon-by-Aerotech

I170S

I_{tot} = 374.0 Ns
 F_{avg} = 175.6 N
 t_{burn} = 2.13 s
 d = 38 mm

Data source:
Aerotech

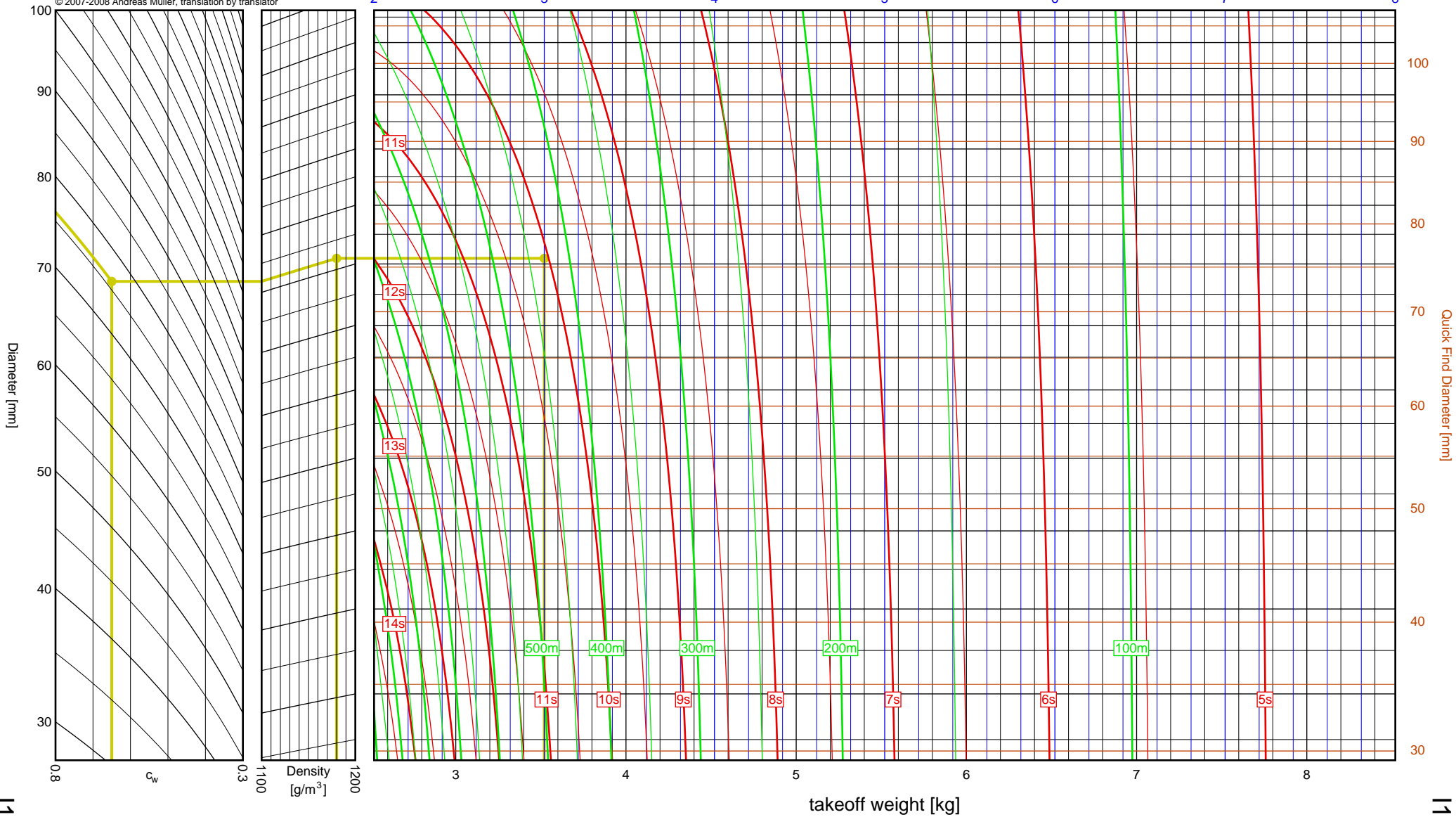


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 76mm, drag = 0.65, density = 1180 g/m³, weight = 3.520kg
Results: time to apogee: 10.1s, expected altitude: 430m

empty weight [kg]

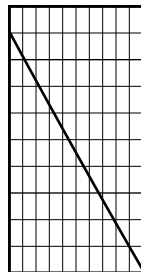


Kosdon-by-Aerotech

I301W

I_{tot} = 590.0 Ns
 F_{avg} = 302.2 N
 t_{burn} = 1.95 s
 d = 38 mm

Data source:
Aerotech

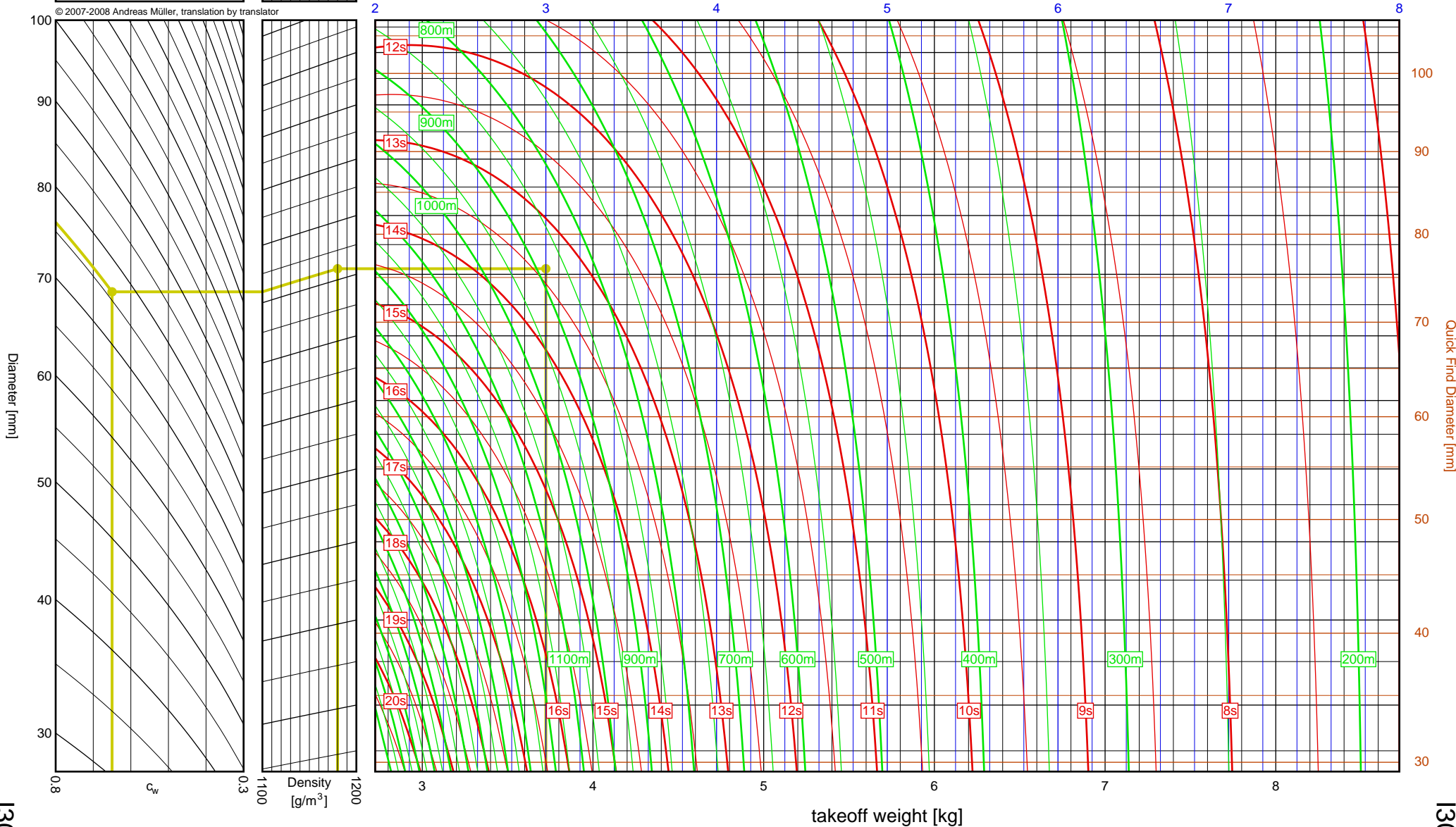


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 76mm, drag = 0.65, density = 1180 g/m³, weight = 3.724kg
Results: time to apogee: 13.4s, expected altitude: 884m

empty weight [kg]



3", I-J

6

I301W

Quick Find Diameter [mm]

Diameter [mm]

c_w

Density
[g/m³]

takeoff weight [kg]

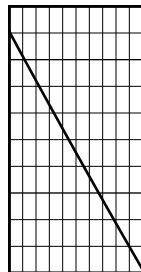
I301W

Kosdon-by-Aerotech

I550R

I_{tot} = 591.3 Ns
 F_{avg} = 543.0 N
 t_{burn} = 1.09 s
 d = 38 mm

Data source:
Aerotech

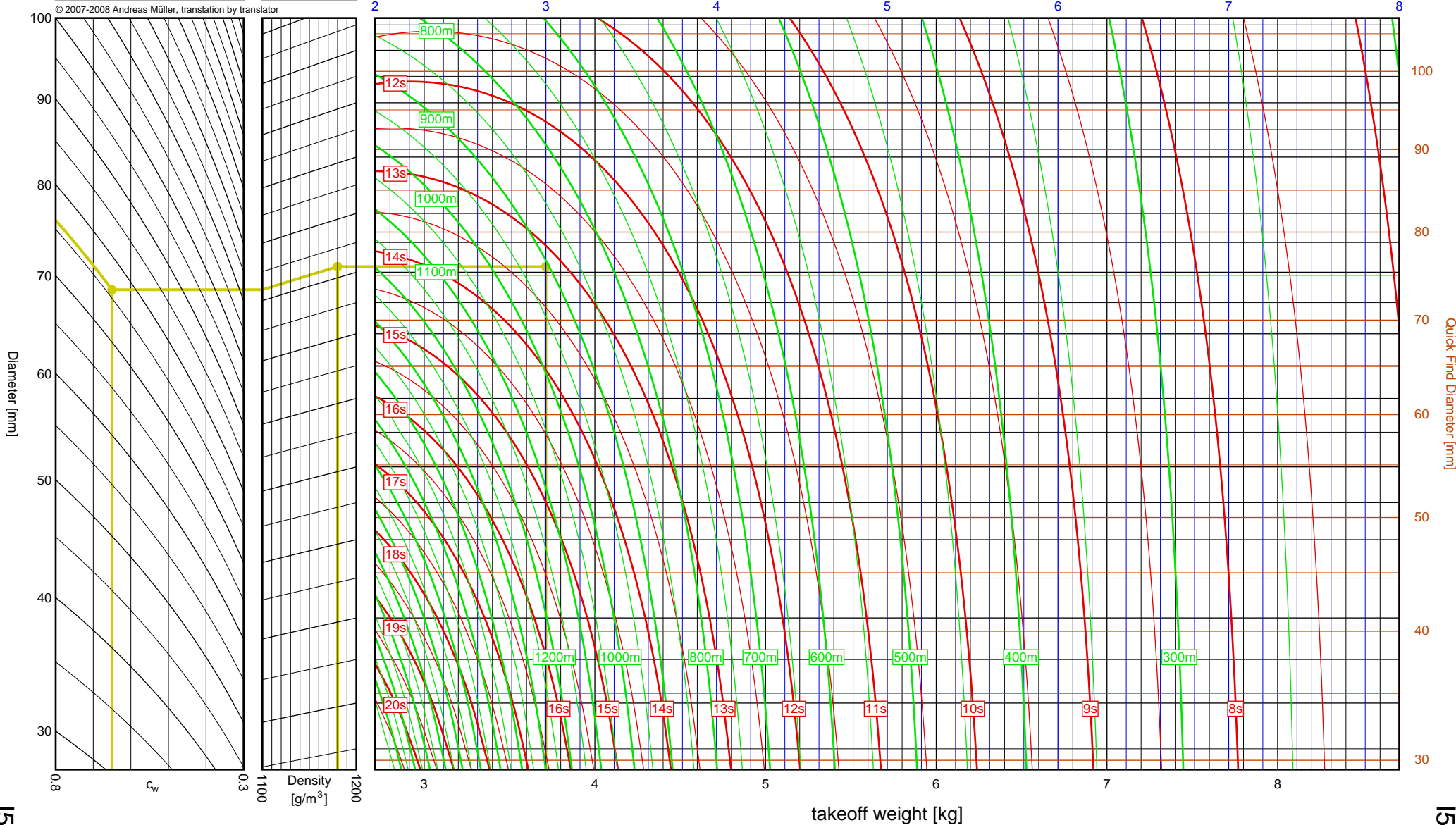


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 76mm, drag = 0.65, density = 1180 g/m³, weight = 3.713kg
Results: time to apogee: 13.2s, expected altitude: 906m

empty weight [kg]



3", I-J

6

I550R

Quick Find Diameter [mm]

I550R

Diameter [mm]

c_w

Density [g/m³]

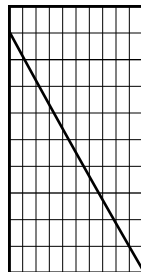
takeoff weight [kg]

Kosdon-by-Aerotech

J740G

$I_{tot} = 665.1 \text{ Ns}$
 $F_{avg} = 788.1 \text{ N}$
 $t_{burn} = 0.84 \text{ s}$
 $d = 38 \text{ mm}$

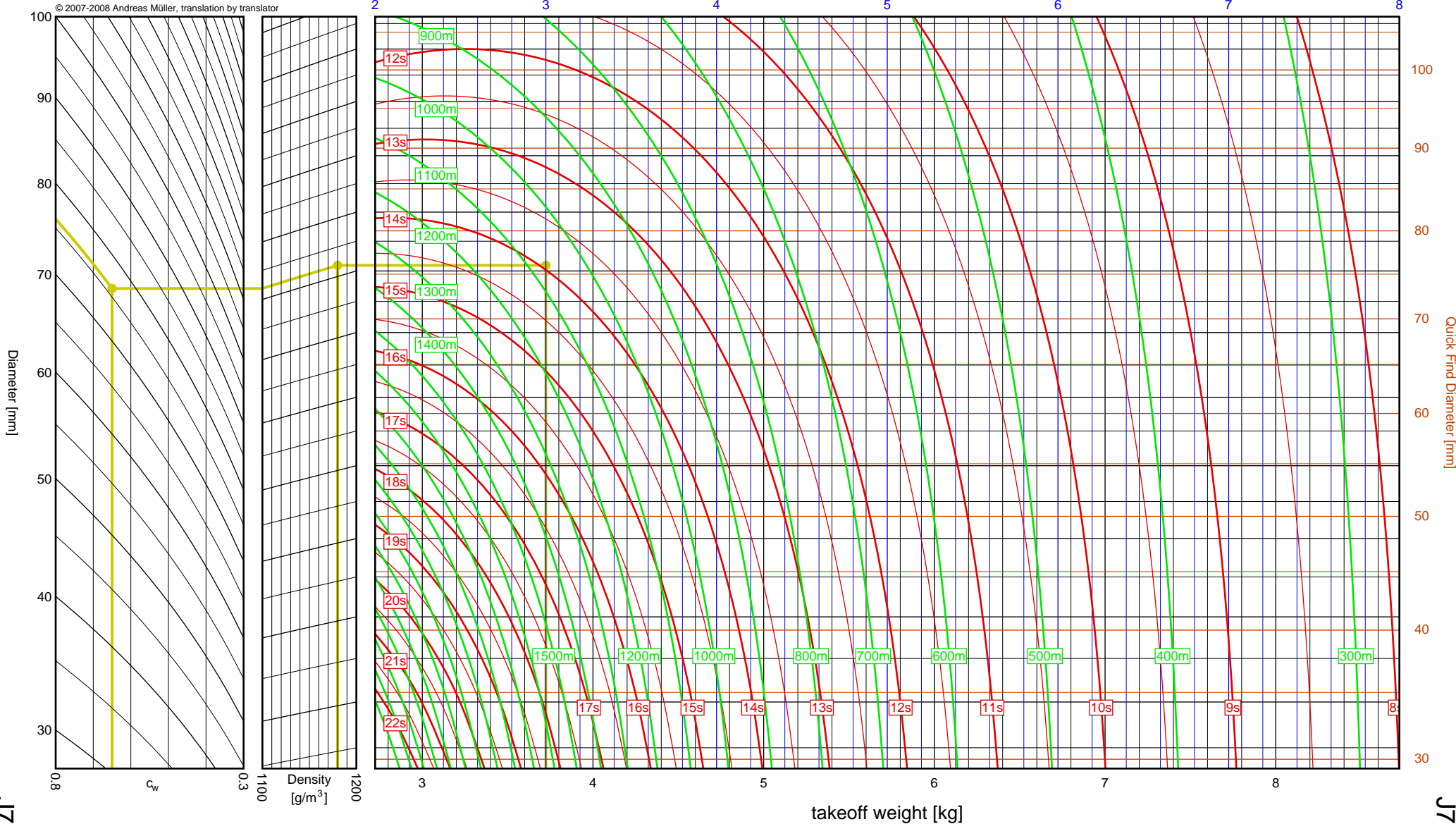
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 76mm, drag = 0.65, density = 1180 g/m³, weight = 3.724kg
Results: time to apogee: 14.0s, expected altitude: 1069m

empty weight [kg]

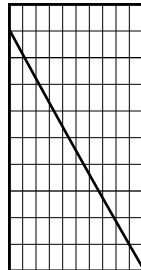


Kosdon-by-Aerotech

K520F

$I_{tot} = 645.5 \text{ Ns}$
 $F_{avg} = 514.3 \text{ N}$
 $t_{burn} = 1.25 \text{ s}$
 $d = 38 \text{ mm}$

Data source:
Aerotech

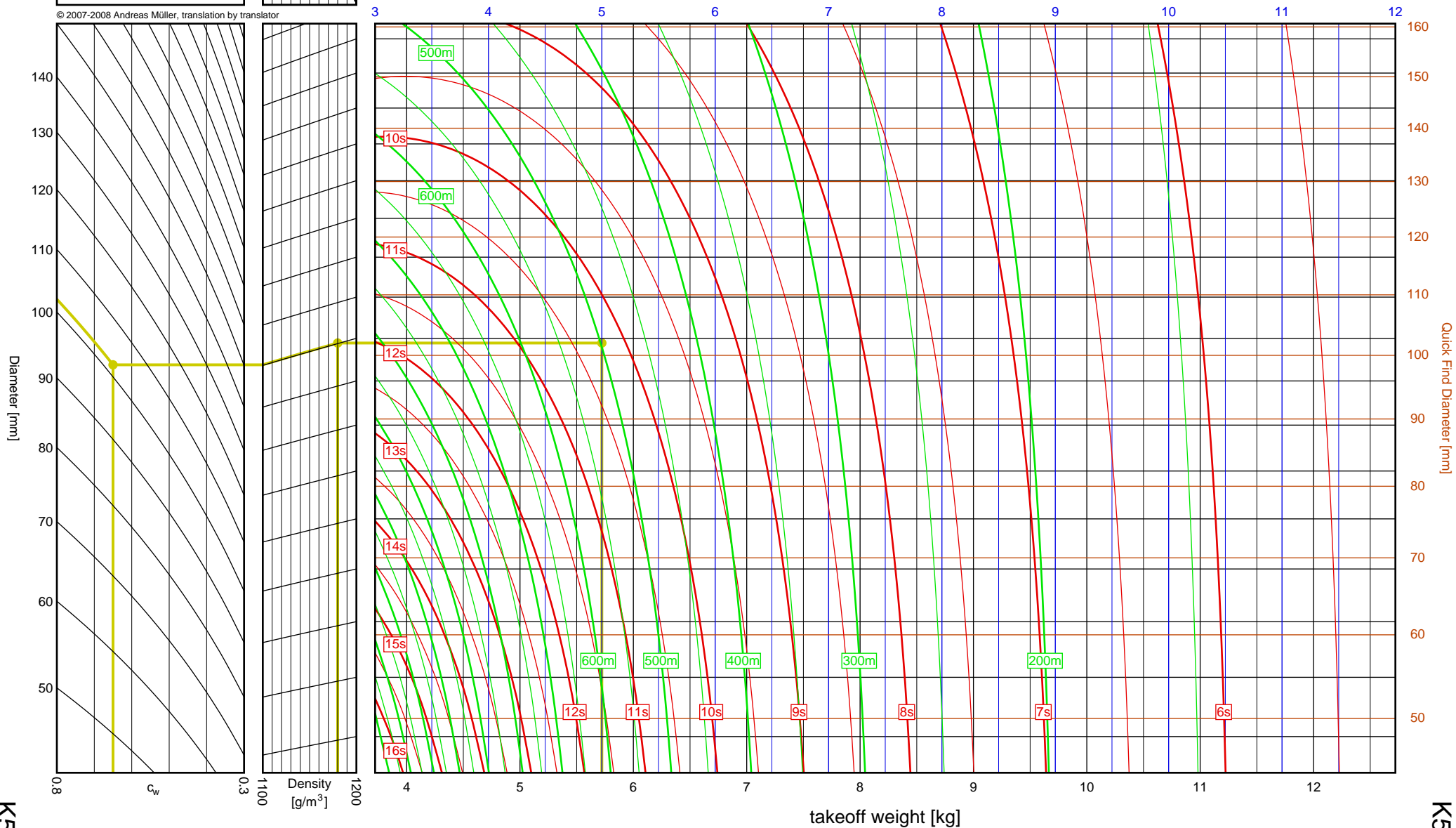


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 102mm, drag = 0.65, density = 1180 g/m³, weight = 5.722kg
 Results: time to apogee: 10.2s, expected altitude: 499m

empty weight [kg]



4", J-K⁷

K520F

Quick Find Diameter [mm]

K520F

7-1

c_w

Density [g/m³]

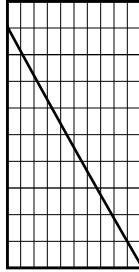
takeoff weight [kg]

Kosdon-by-Aerotech

J740G

$I_{tot} = 665.1 \text{ Ns}$
 $F_{avg} = 788.1 \text{ N}$
 $t_{burn} = 0.84 \text{ s}$
 $d = 38 \text{ mm}$

Data source:
Aerotech

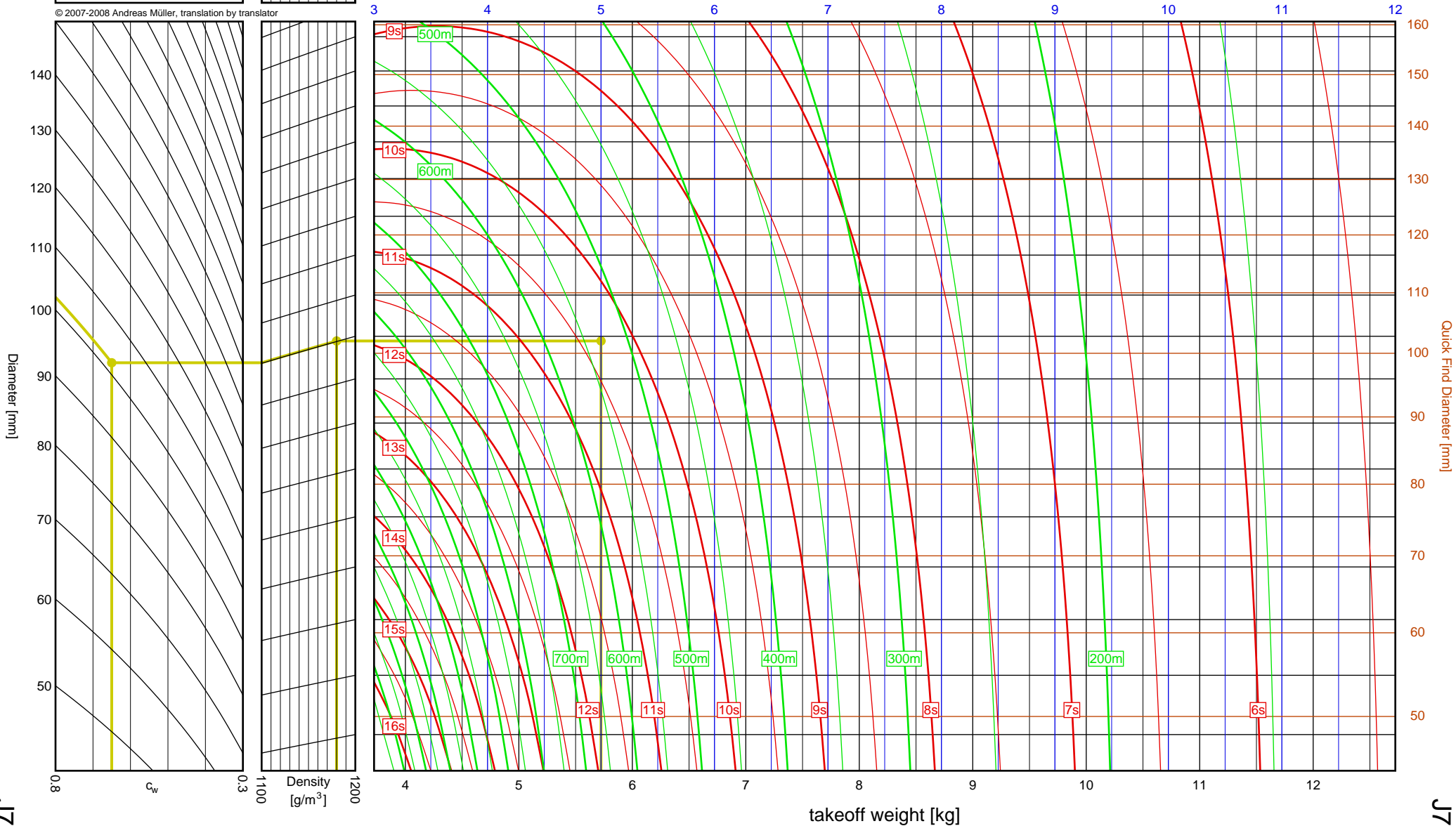


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 102mm, drag = 0.65, density = 1180 g/m³, weight = 5.724kg
 Results: time to apogee: 10.3s, expected altitude: 531m

empty weight [kg]



takeoff weight [kg]

4", J-K

J740G

Quick Find Diameter [mm]

Diameter [mm]

c_w

Density [g/m³]

Quick Find Diameter [mm]

12

11

10

9

8

7

6

5

4

3

50

60

70

80

90

100

110

120

130

140

150

160

170

180

190

200

210

220

230

240

250

260

270

280

290

300

310

320

330

340

350

360

370

380

390

400

410

420

430

440

450

460

470

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490

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510

520

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660

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690

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710

720

730

740

750

760

770

780

790

800

810

820

830

840

850

860

870

880

890

900

910

920

930

940

950

960

970

980

990

1000

1010

1020

1030

1040

1050

1060

1070

1080

1090

1100

1110

1120

1130

1140

1150

1160

1170

1180

1190

1200

1210

1220

1230

1240

1250

1260

1270

1280

1290

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1330

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2010

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2100

2110

2120

2130

2140

2150

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2230

2240

2250

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2270

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2460

2470

2480

2490

2500

2510

2520

2530

2540

2550

2560

2570

2580

2590

2600

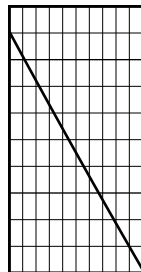
2610

Kosdon-by-Aerotech

K700F

$I_{tot} = 1436.0 \text{ Ns}$
 $F_{avg} = 776.2 \text{ N}$
 $t_{burn} = 1.85 \text{ s}$
 $d = 54 \text{ mm}$

Data source:
Aerotech

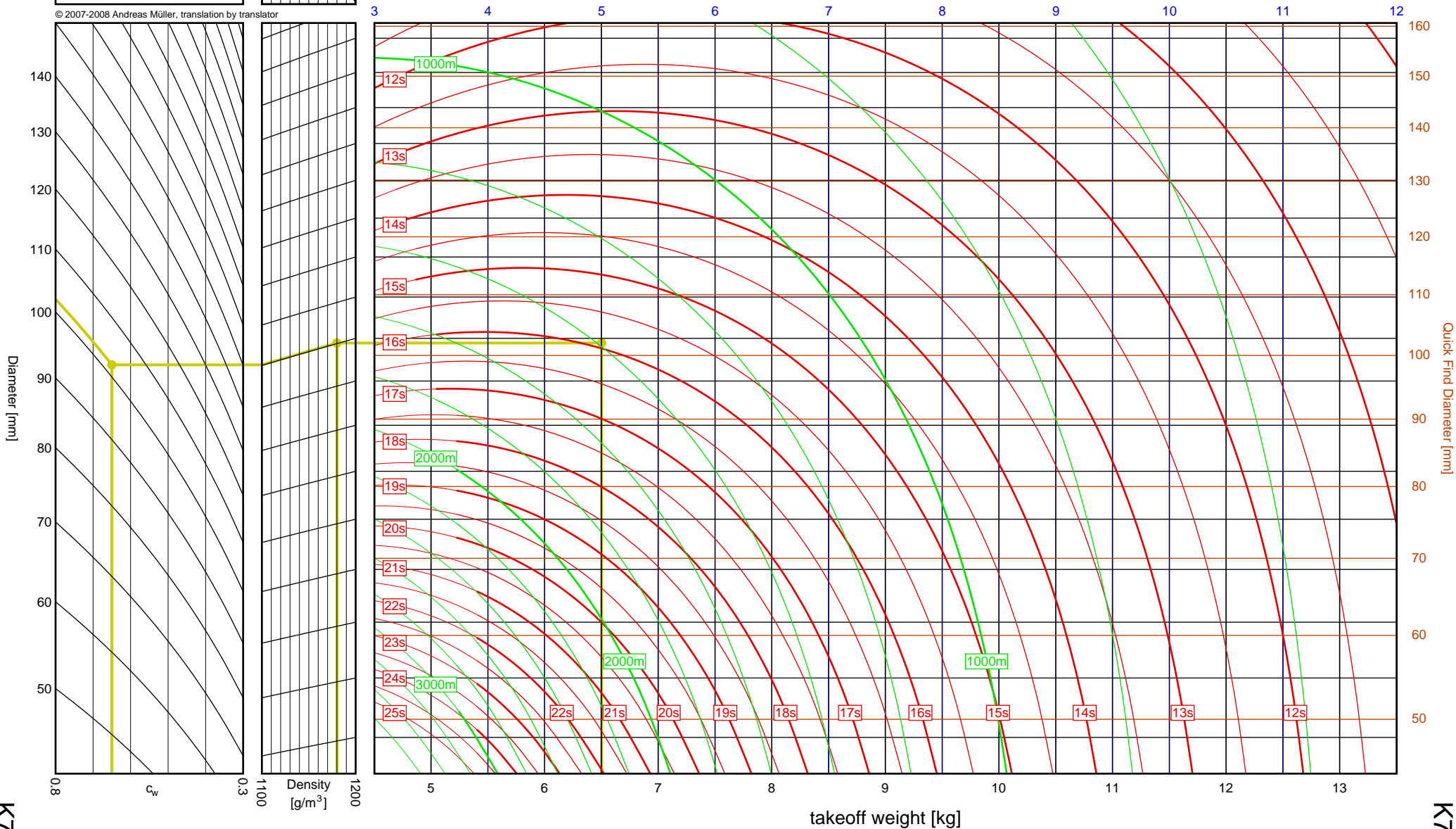


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 102mm, drag = 0.65, density = 1180 g/m³, weight = 6.503kg
 Results: time to apogee: 15.9s, expected altitude: 1394m

empty weight [kg]



4", J-K

K700F

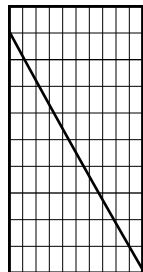
K700F

Kosdon-by-Aerotech

K700F

$I_{tot} = 1436.0 \text{ Ns}$
 $F_{avg} = 776.2 \text{ N}$
 $t_{burn} = 1.85 \text{ s}$
 $d = 54 \text{ mm}$

Data source:
Aerotech

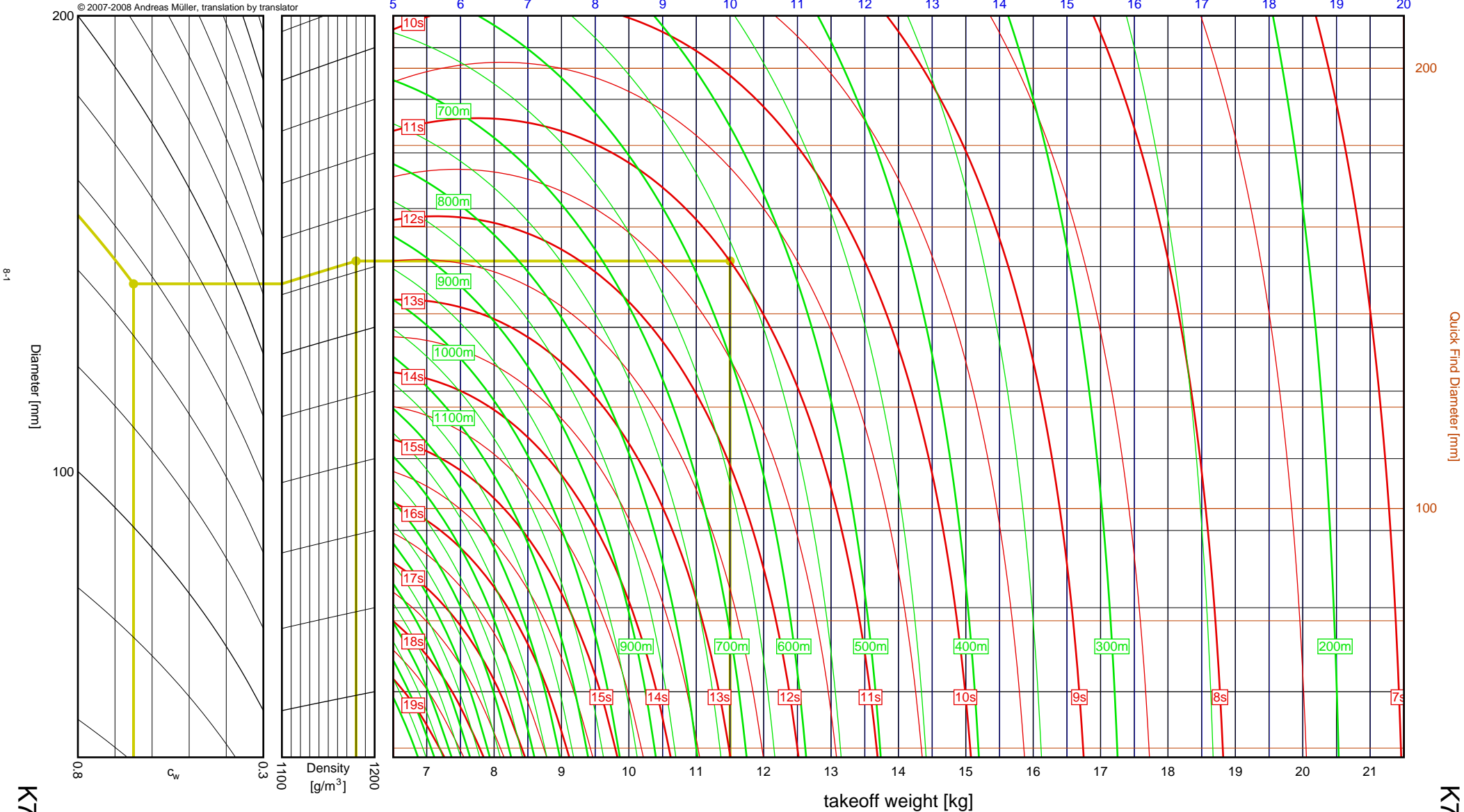


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 152mm, drag = 0.65, density = 1180 g/m^3 , weight = 11.503kg
 Results: time to apogee: 11.0s, expected altitude: 559m

empty weight [kg]



6", K-L

8

K700F

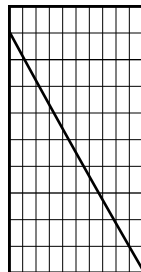
K700F

Kosdon-by-Aerotech

K1750R

$I_{tot} = 2468.8 \text{ Ns}$
 $F_{avg} = 1690.9 \text{ N}$
 $t_{burn} = 1.46 \text{ s}$
 $d = 54 \text{ mm}$

Data source:
Aerotech

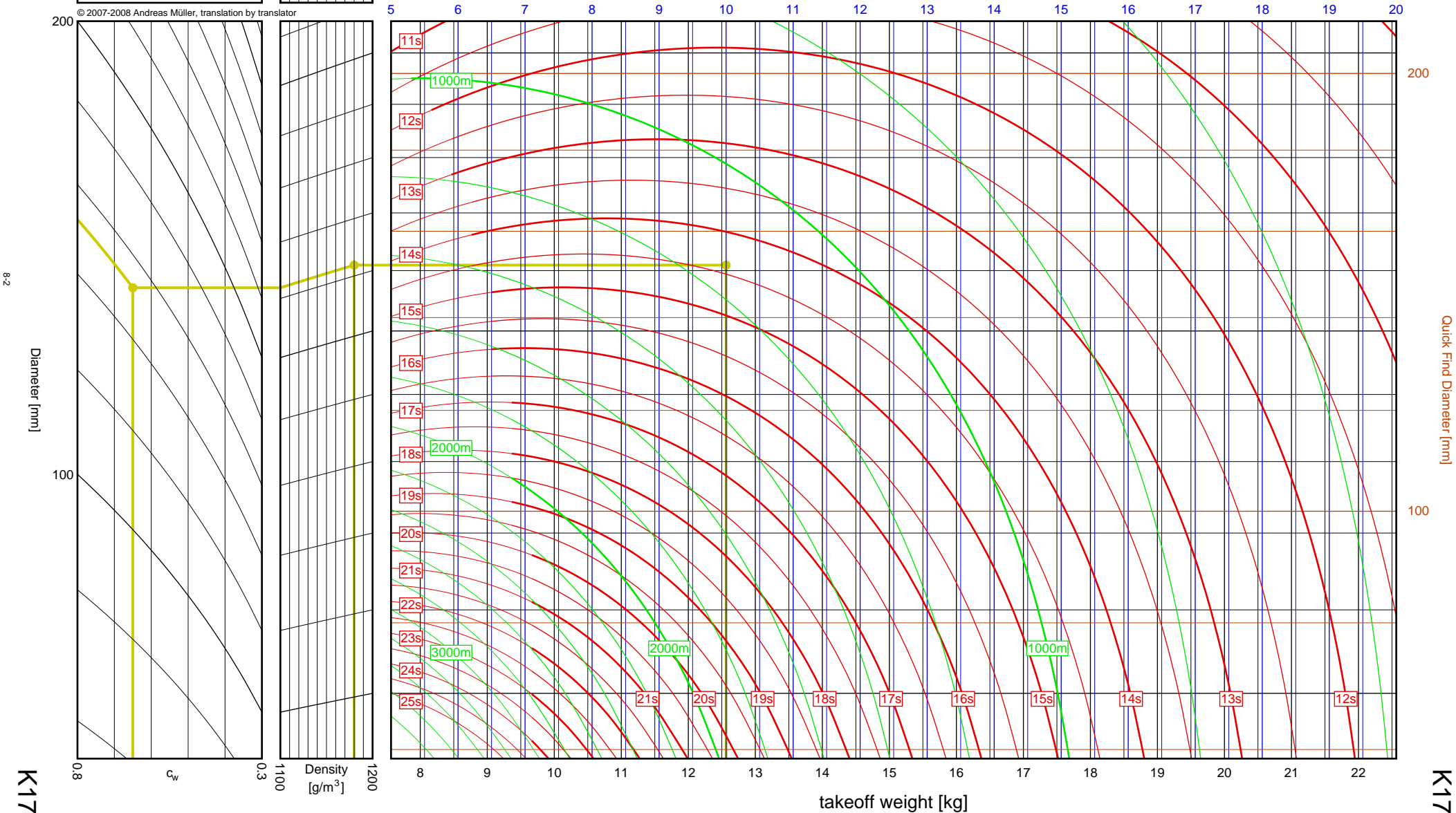


Launch site altitude [m ASL]

1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 152mm, drag = 0.65, density = 1180 g/m^3 , weight = 12.564kg
Results: time to apogee: 14.4s, expected altitude: 1147m

empty weight [kg]



6", K-L

Quick Find Diameter [mm]

K1750R

8-2

100

200

220

240

260

280

300

320

340

360

380

400

420

440

460

480

500

520

540

560

580

600

620

640

660

680

700

720

740

760

780

800

820

840

860

880

900

920

940

960

980

1000

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1080

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1760

1780

1800

1820

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1860

1880

1900

1920

1940

1960

1980

2000

2020

2040

2060

2080

2100

2120

2140

2160

2180

2200

2220

2240

2260

2280

2300

2320

2340

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2800

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2920

2940

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2980

3000

3020

3040

3060

3080

3100

3120

3140

3160

3180

3200

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4180

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4880

4900

4920

4940

4960

4980

5000

5020

5040

5060

5080

5100

5120

5140

5160

5180

5200

5220

5240

5260

5280

5300

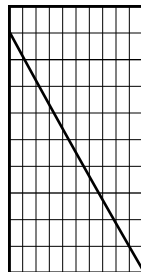
5320

Kosdon-by-Aerotech

K750W

$I_{tot} = 2538.5 \text{ Ns}$
 $F_{avg} = 732.0 \text{ N}$
 $t_{burn} = 3.47 \text{ s}$
 $d = 54 \text{ mm}$

Data source:
Aerotech

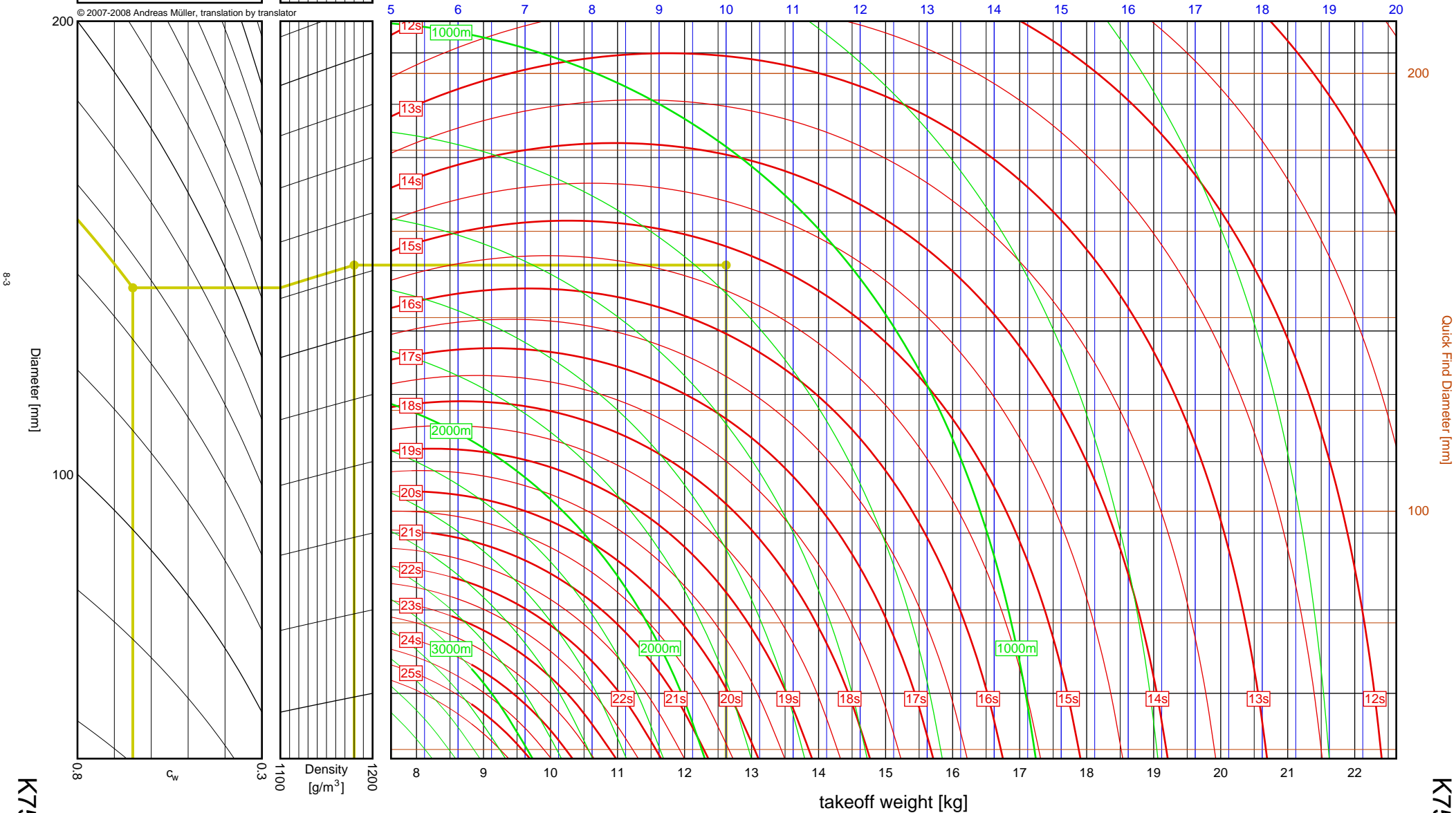


1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 152mm, drag = 0.65, density = 1180 g/m^3 , weight = 12.620kg

Results: time to apogee: 15.2s, expected altitude: 1160m

empty weight [kg]



6", K-L

8

K750W

Quick Find Diameter [mm]

200

100

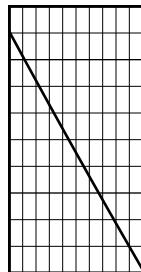
K750W

Kosdon-by-Aerotech

L2300G

$I_{tot} = 2737.0 \text{ Ns}$
 $F_{avg} = 2191.4 \text{ N}$
 $t_{burn} = 1.25 \text{ s}$
 $d = 54 \text{ mm}$

Data source:
Aerotech

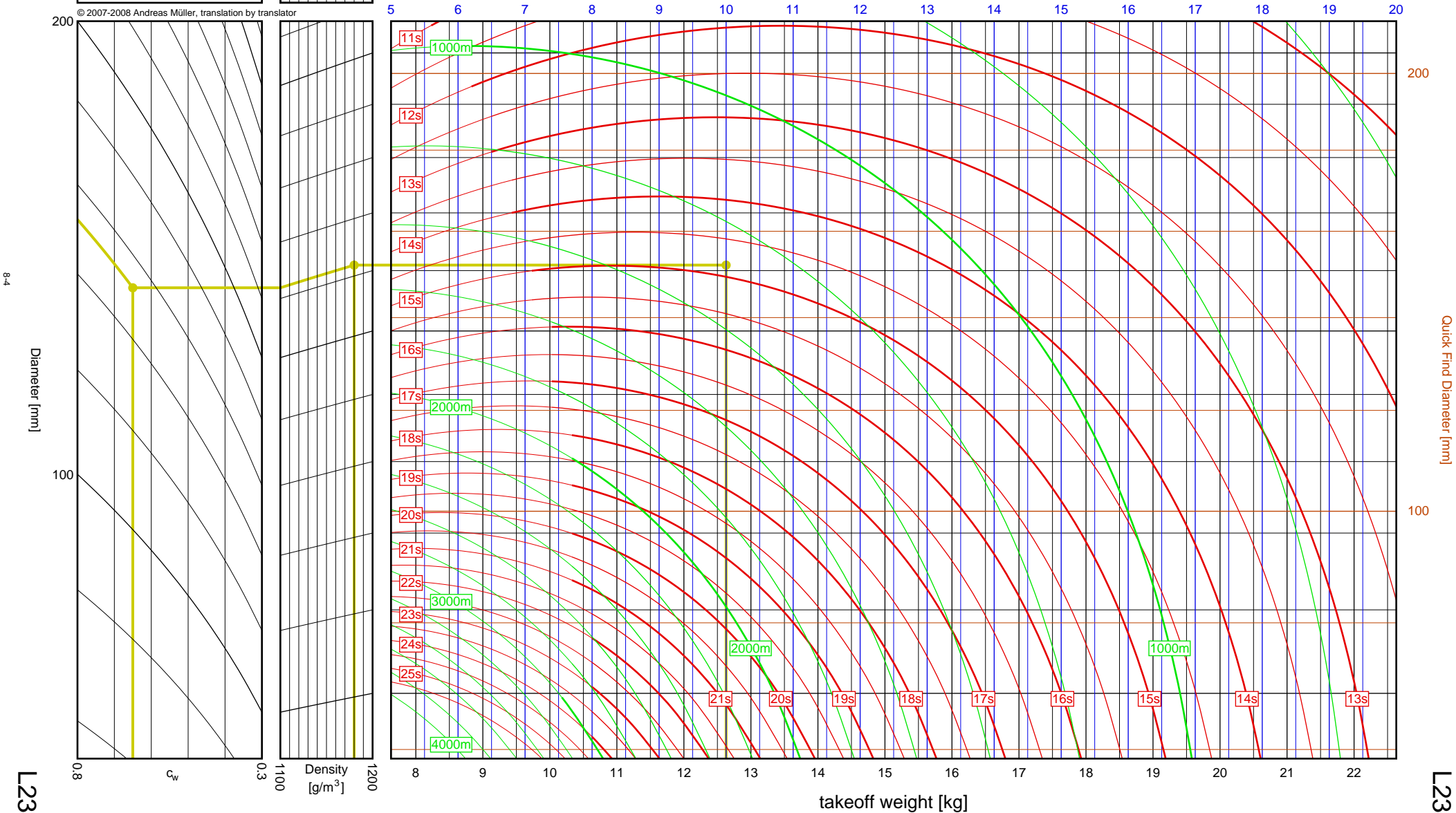


1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 152mm, drag = 0.65, density = 1180 g/m³, weight = 12.630kg

Results: time to apogee: 14.9s, expected altitude: 1278m

empty weight [kg]



6", K-L⁸

Quick Find Diameter [mm]

L2300G

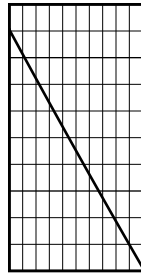
L2300G

Kosdon-by-Aerotech

M3500R

$I_{tot} = 7312.0 \text{ Ns}$
 $F_{avg} = 3111.6 \text{ N}$
 $t_{burn} = 2.35 \text{ s}$
 $d = 75 \text{ mm}$

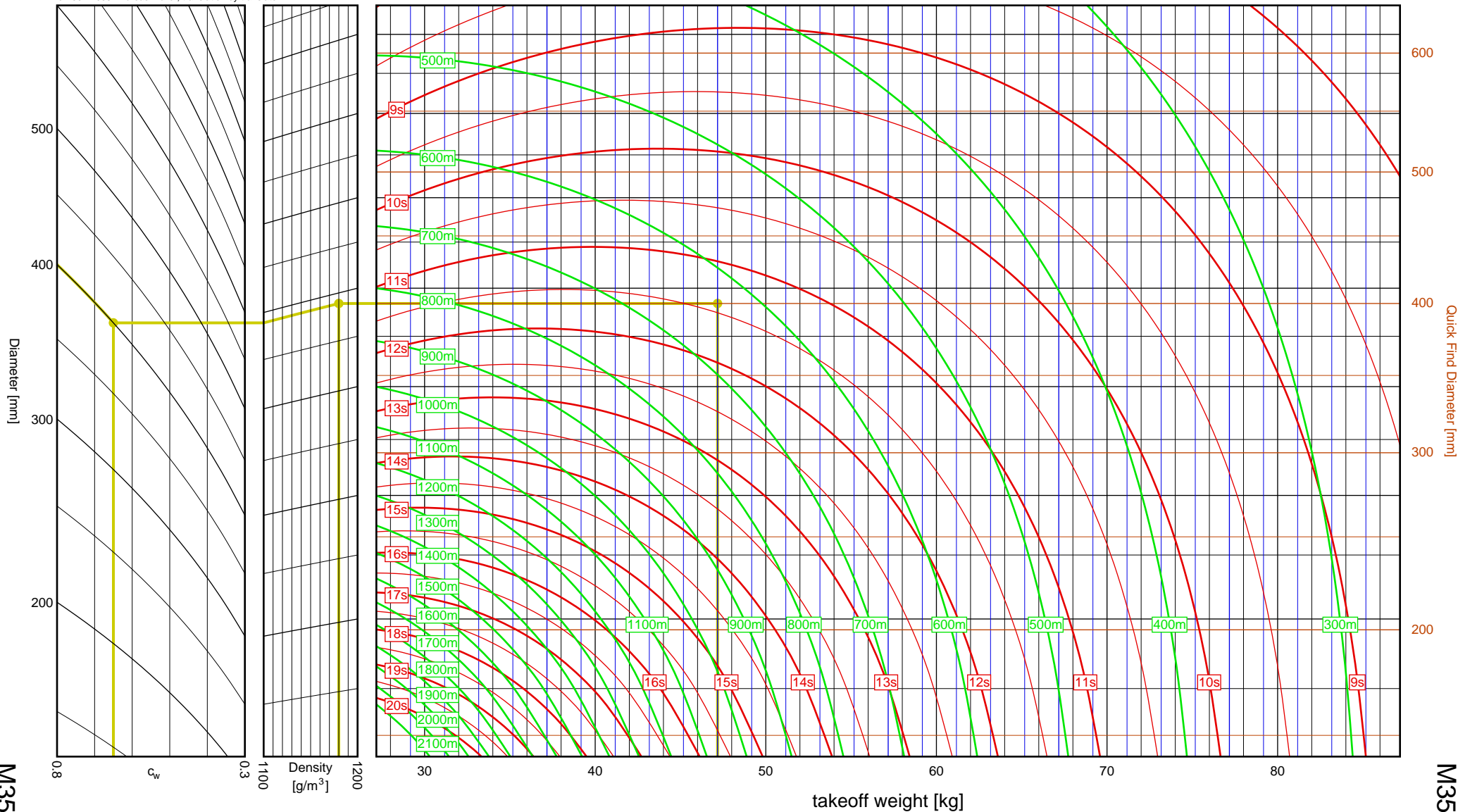
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 400mm, drag = 0.65, density = 1180 g/m^3 , weight = 47.173kg
 Results: time to apogee: 11.4s, expected altitude: 633m

empty weight [kg]

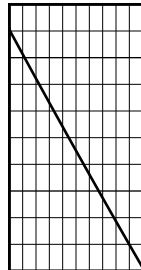


Kosdon-by-Aerotech

M1450W

I_{tot} = 8069.7 Ns
 F_{avg} = 1354.0 N
 t_{burn} = 5.96 s
 d = 75 mm

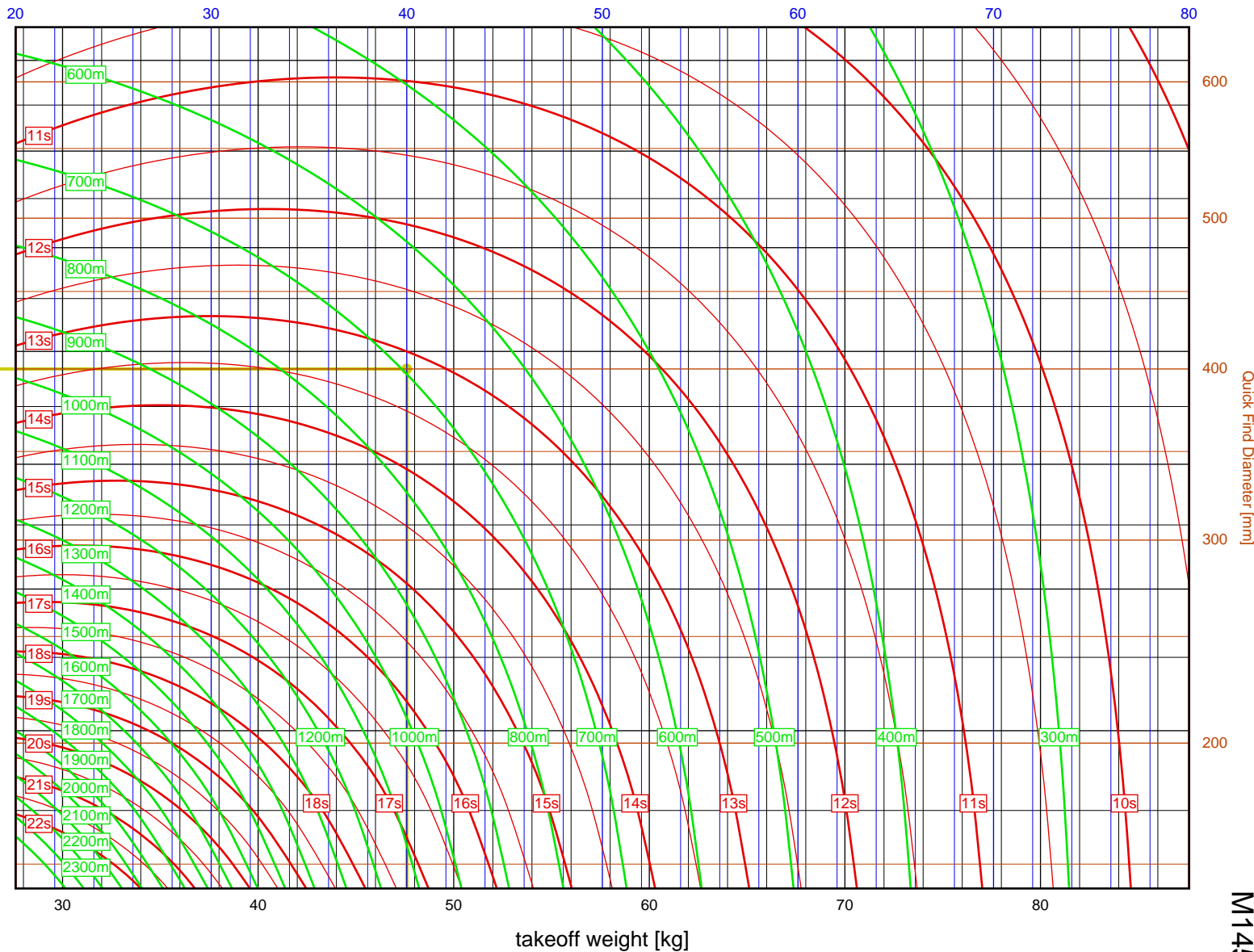
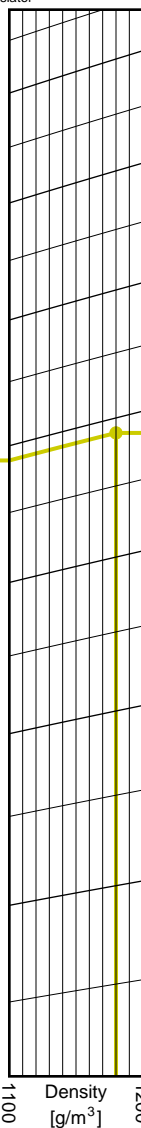
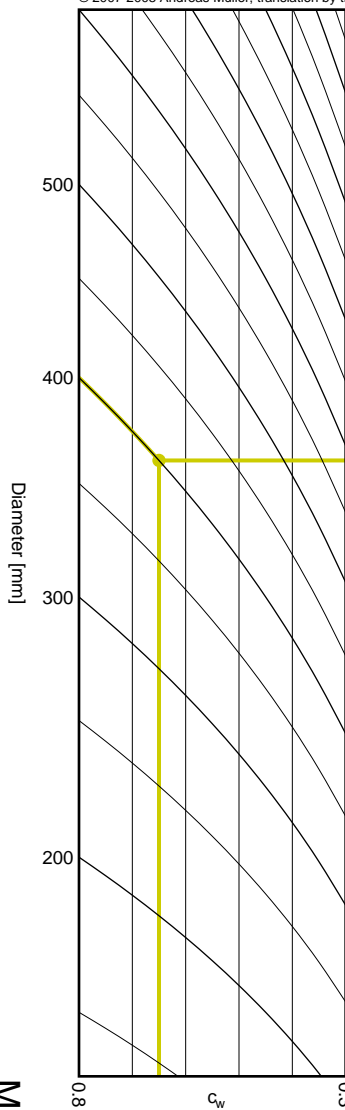
Data source:
Aerotech



1. From rocket diameter scale move down along slanted line to vertical line matching drag coefficient.
2. Move along horizontal to left border of density scale
3. Move up slanted line to vertical line matching density at launch site
4. From intersection point move horizontally to vertical line matching rocket mass
5. Read off expected time to apogee from red curves, altitude from green curves

Sample: diameter = 400mm, drag = 0.65, density = 1180 g/m³, weight = 47.600kg
Results: time to apogee: 13.1s, expected altitude: 696m

empty weight [kg]



X

10

M1450W

M1450W

G135R	3-1
G82W	3-2
H130W	4-2
H225R	4-1
I170S	4-3, 5-1, 6-1
I301W	4-4, 5-2, 6-2
I550R	4-5, 5-3, 6-3
J740G	5-4, 6-4, 7-2
K1750R	8-2
K520F	7-1
K700F	7-3, 8-1
K750W	8-3
L2300G	8-4
M1450W	10-2
M2900R	9-1
M3500R	10-1