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**Croom et al.**

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(54) **AIRCRAFT CONFIGURED FOR FLIGHT IN AN ATMOSPHERE HAVING LOW DENSITY**

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(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 341 days.

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**B64C 39/12** (2006.01)

(52) **U.S. Cl.** ..... **244/45 R**; 244/63; 244/1 R

(58) **Field of Classification Search** ..... 244/63,  
244/218, 49, 45, 1 R, 129.1, 117 R, 158 R,  
244/173

See application file for complete search history.

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*Primary Examiner* — Michael Carone

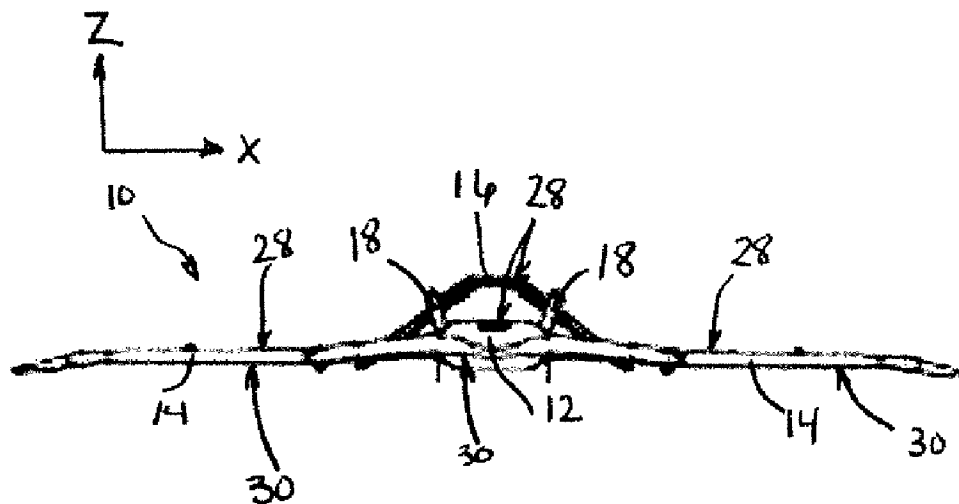
*Assistant Examiner* — Medhat Badawi

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(57) **ABSTRACT**

An aircraft is configured for flight in an atmosphere having a low density. The aircraft includes a fuselage, a pair of wings, and a rear stabilizer. The pair of wings extends from the fuselage in opposition to one another. The rear stabilizer extends from the fuselage in spaced relationship to the pair of wings. The fuselage, the wings, and the rear stabilizer each present an upper surface opposing a lower surface. The upper and lower surfaces have X, Y, and Z coordinates that are configured for flight in an atmosphere having low density.

**19 Claims, 30 Drawing Sheets**



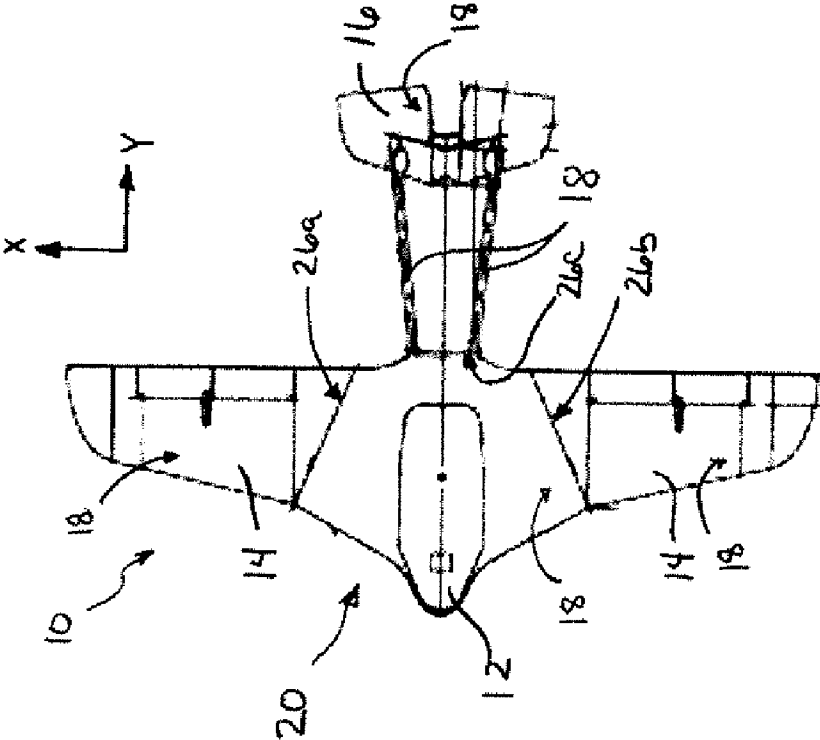


FIG - 1A

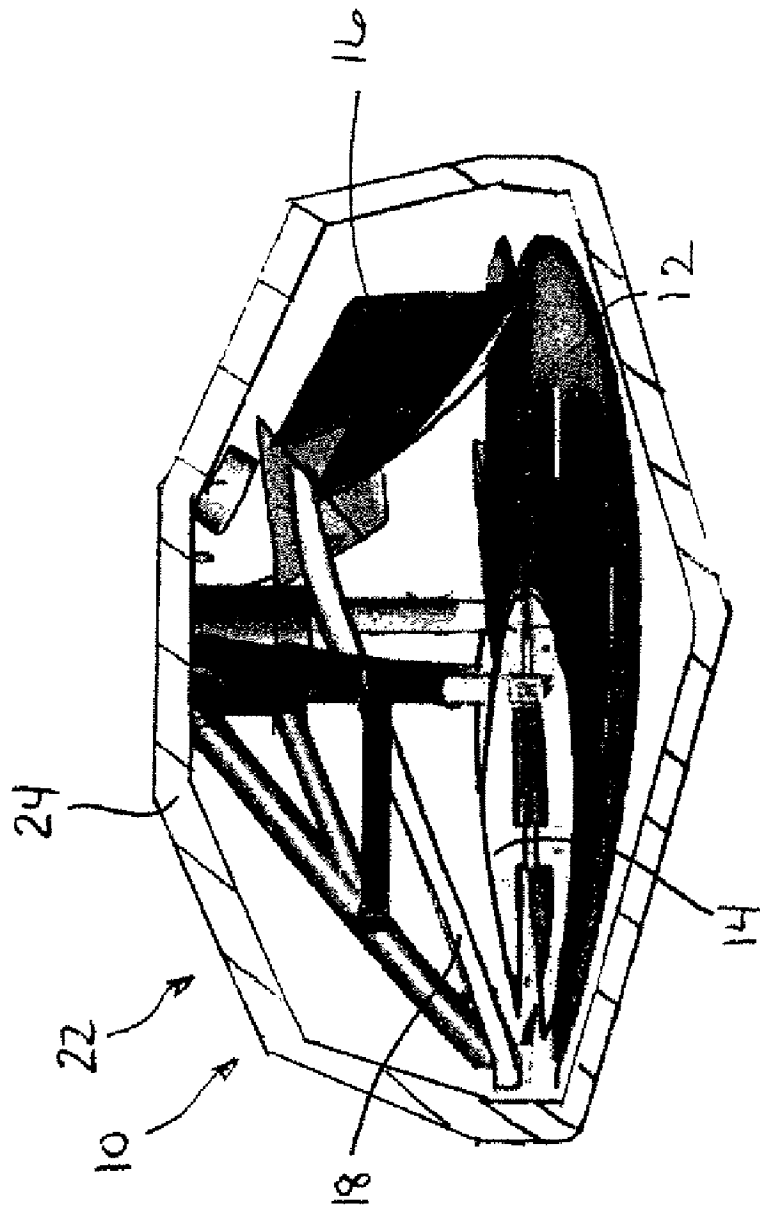
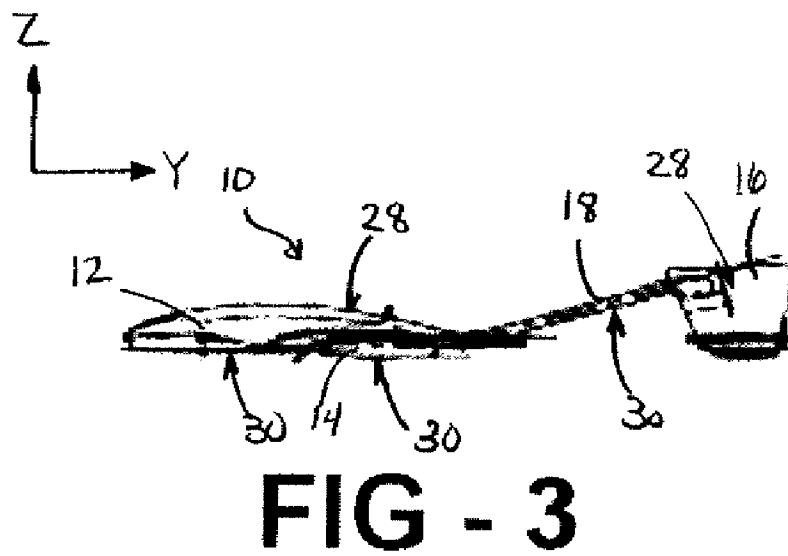
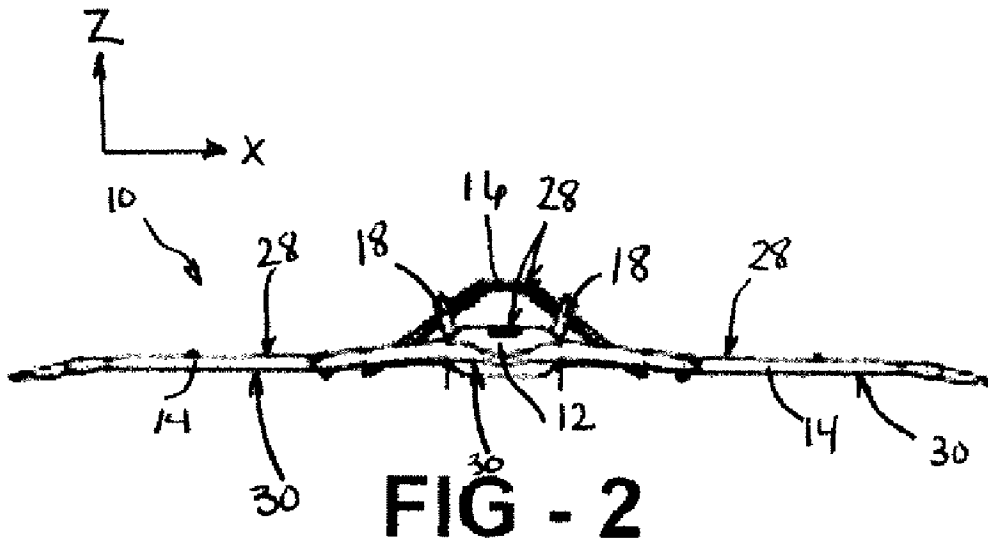
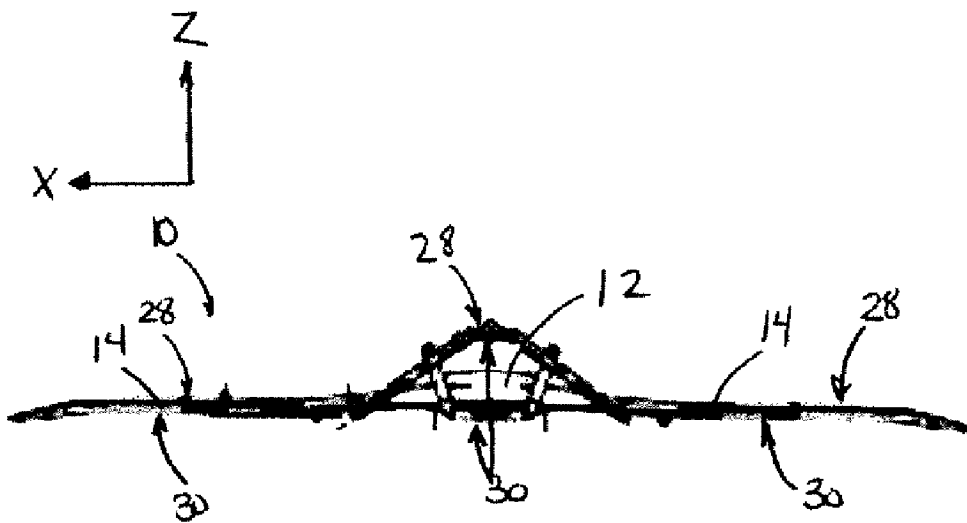
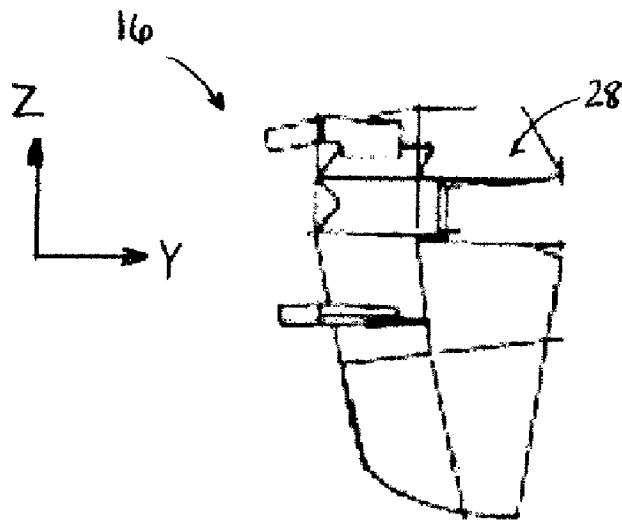


FIG - 1B





**FIG - 4**



**FIG - 5**

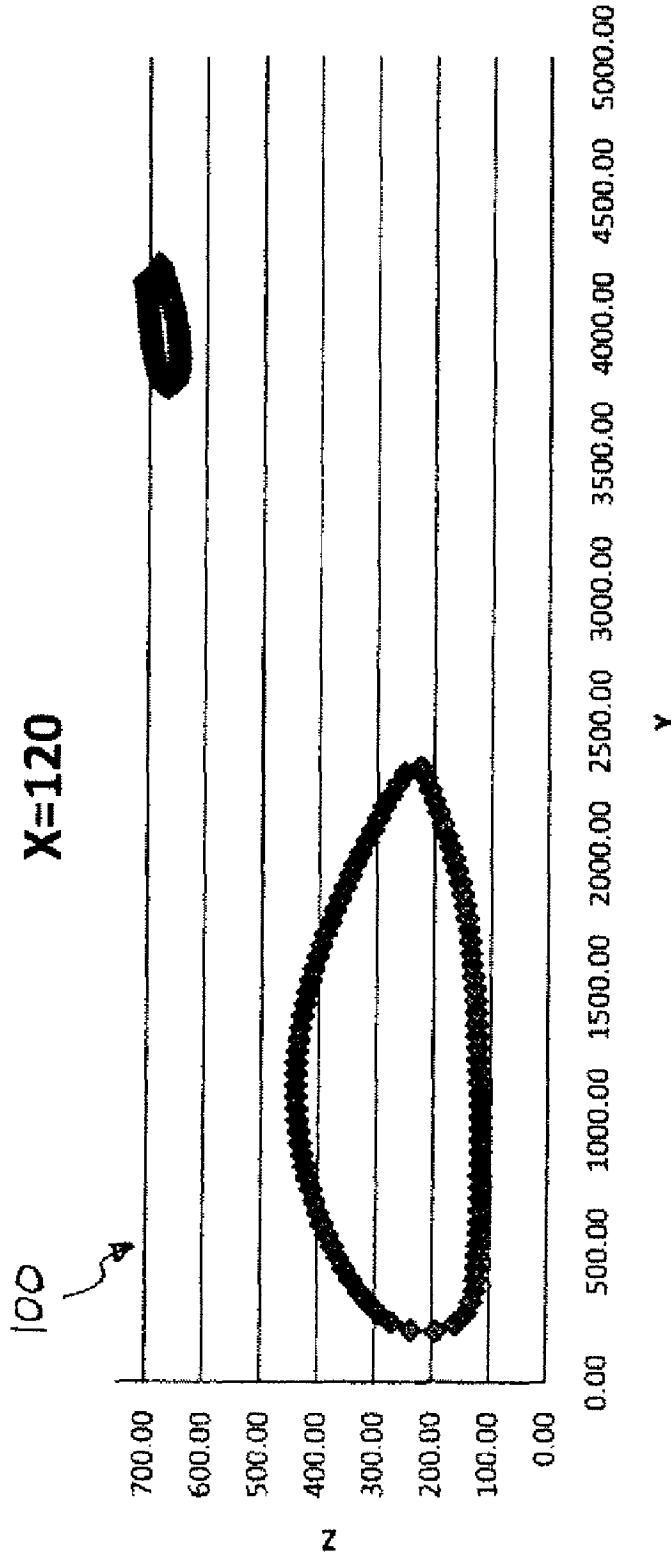


FIG - 6

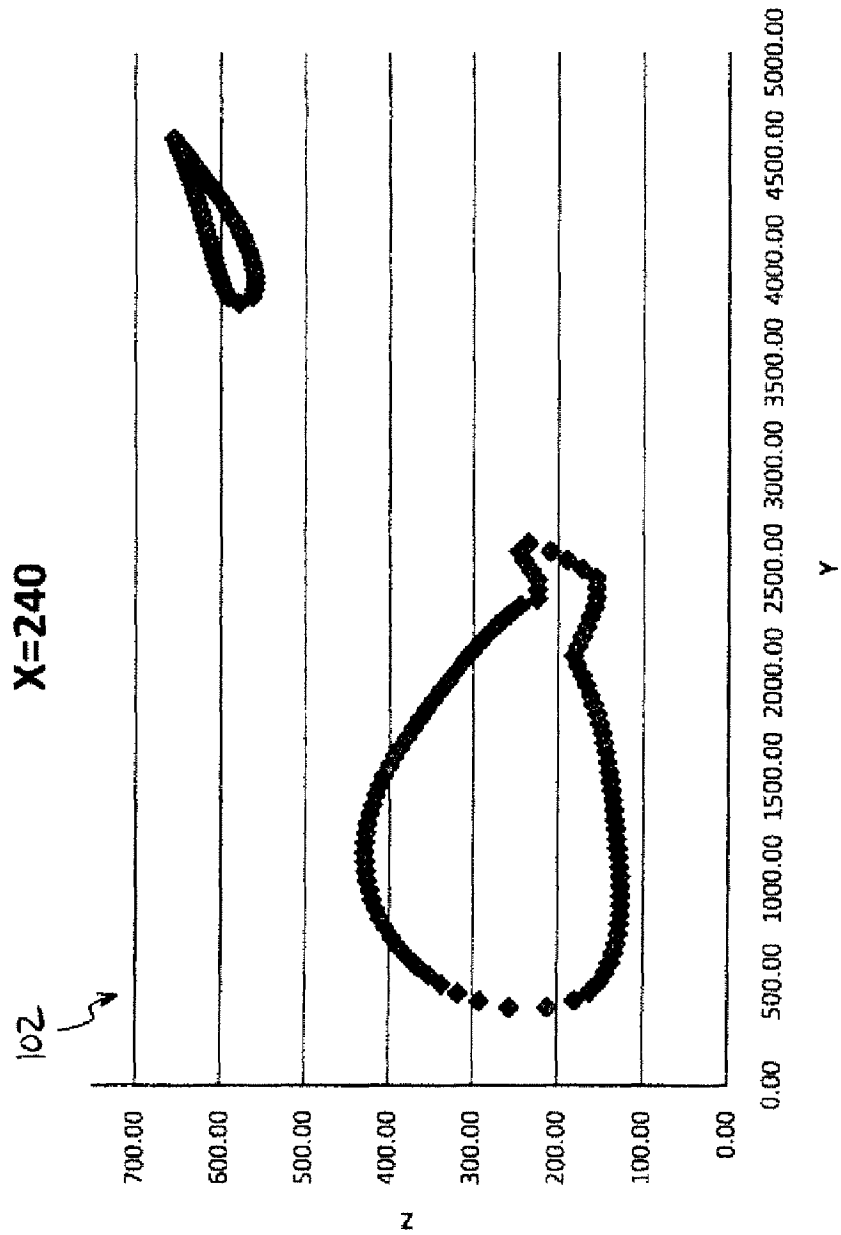


FIG - 7

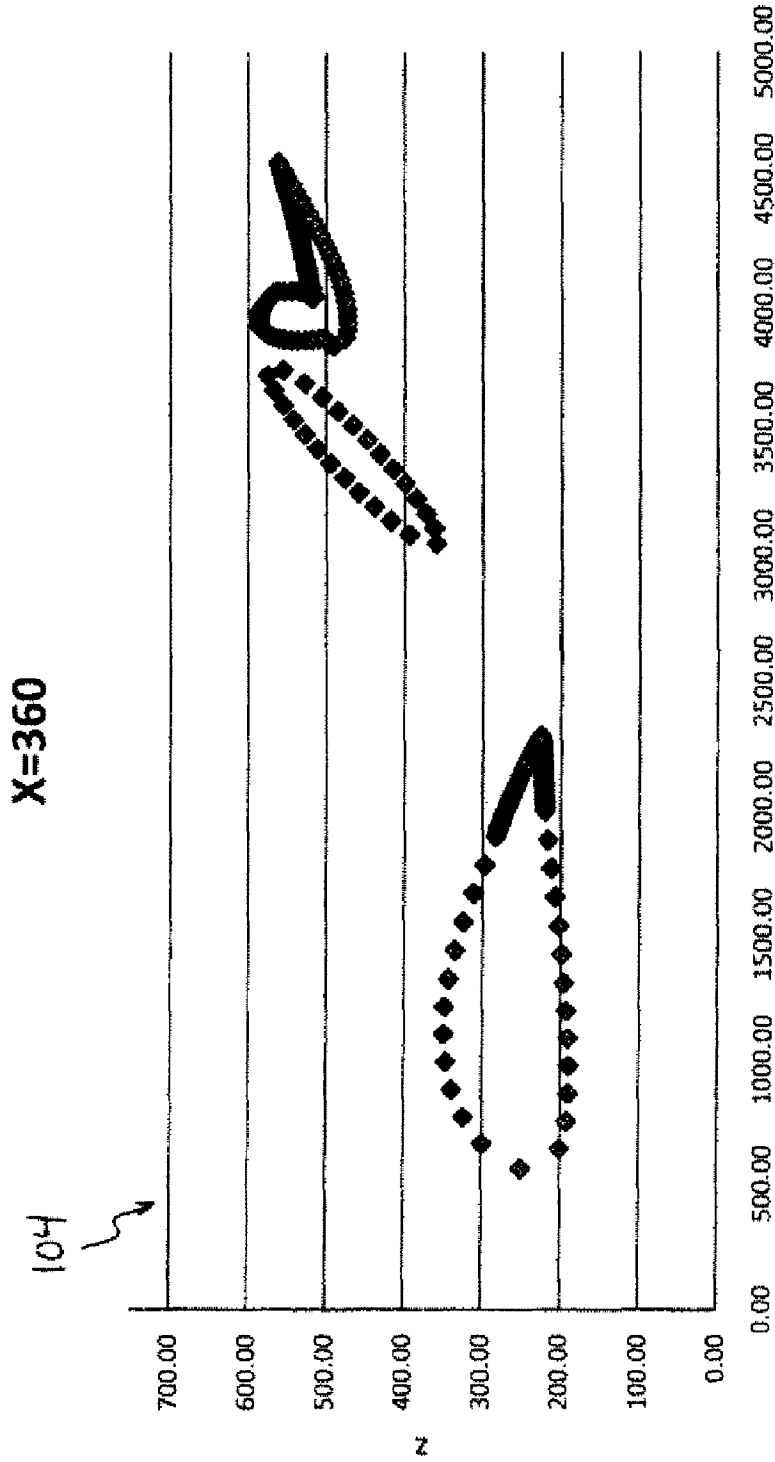


FIG - 8



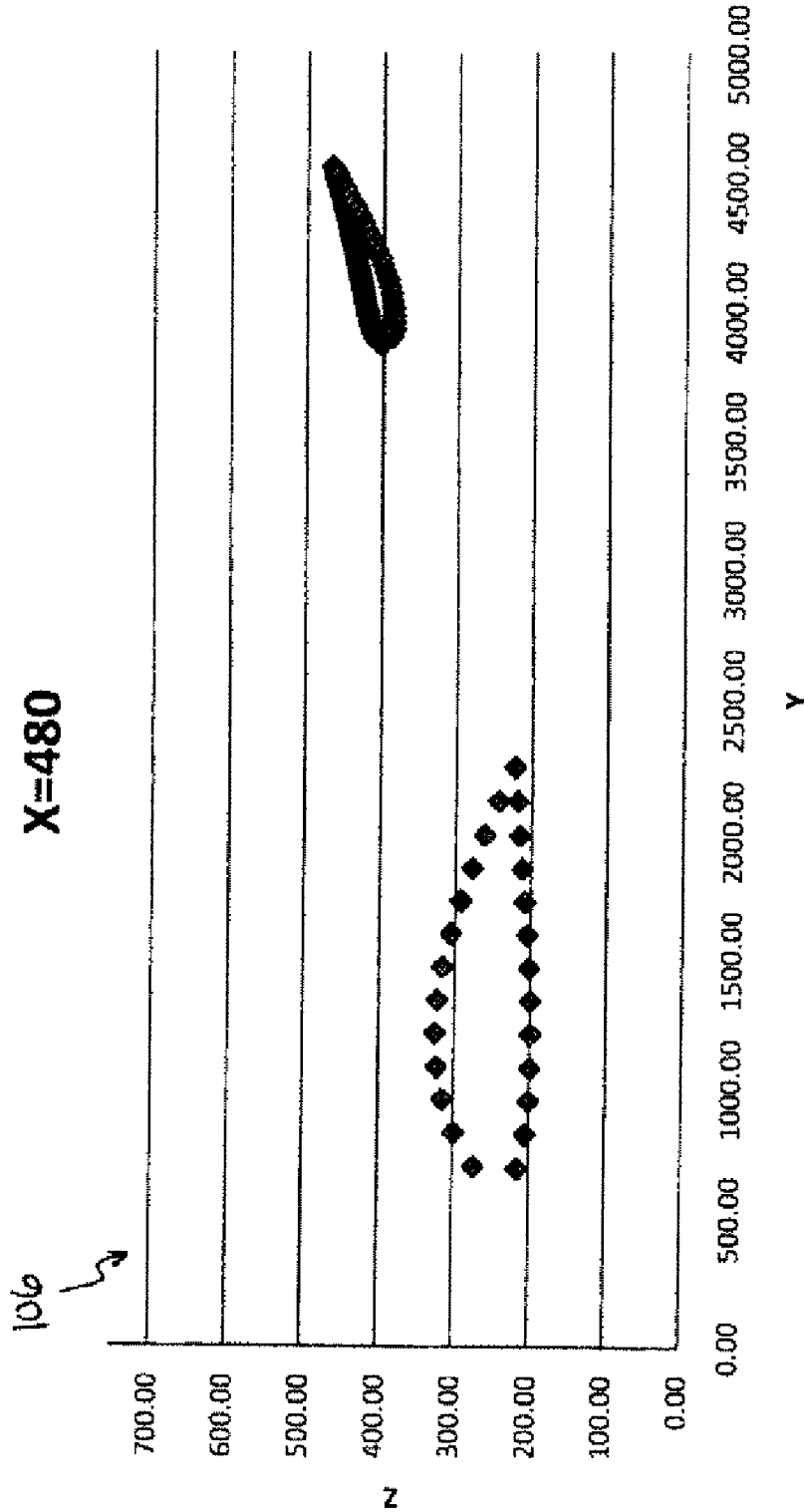


FIG - 9

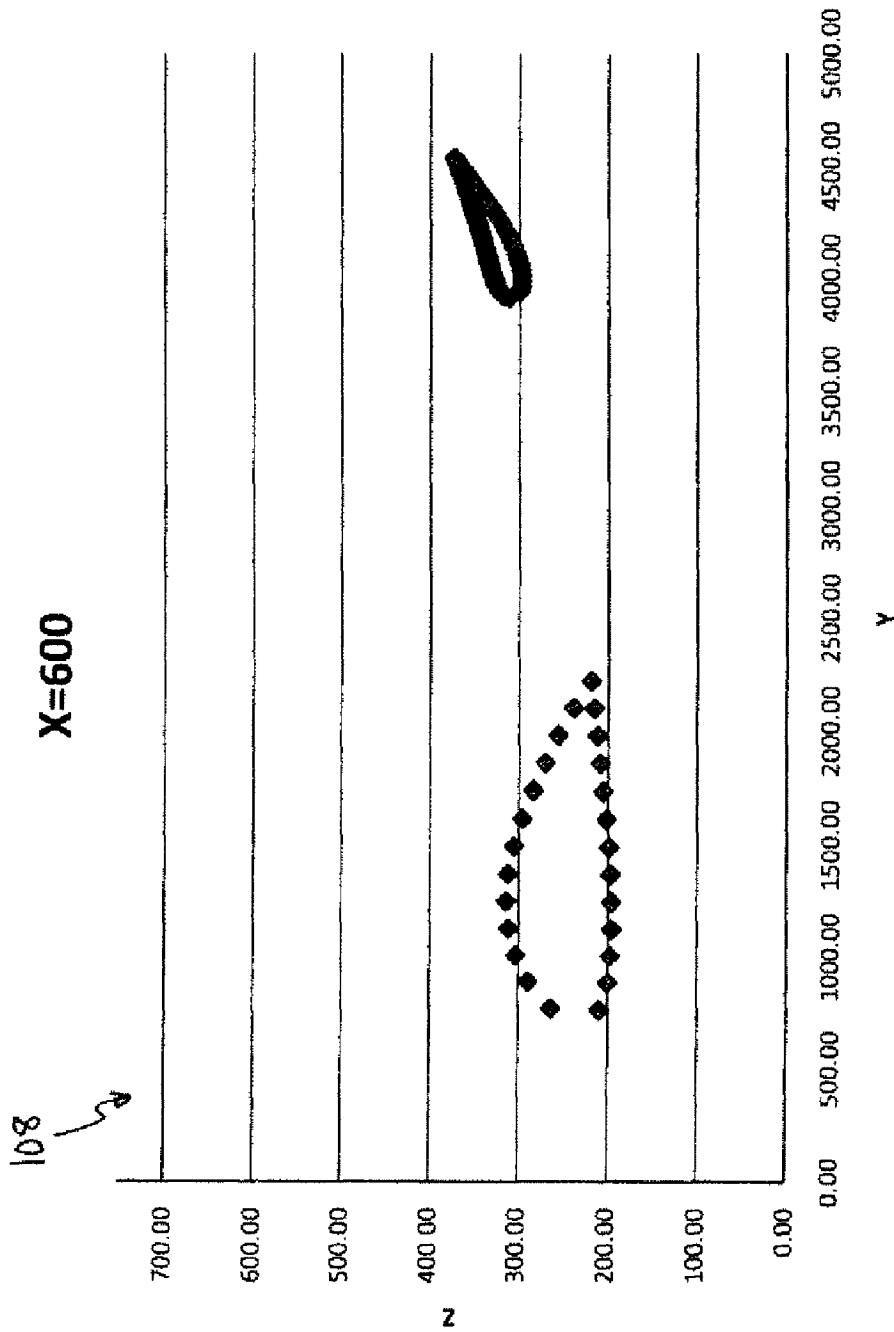


FIG - 10

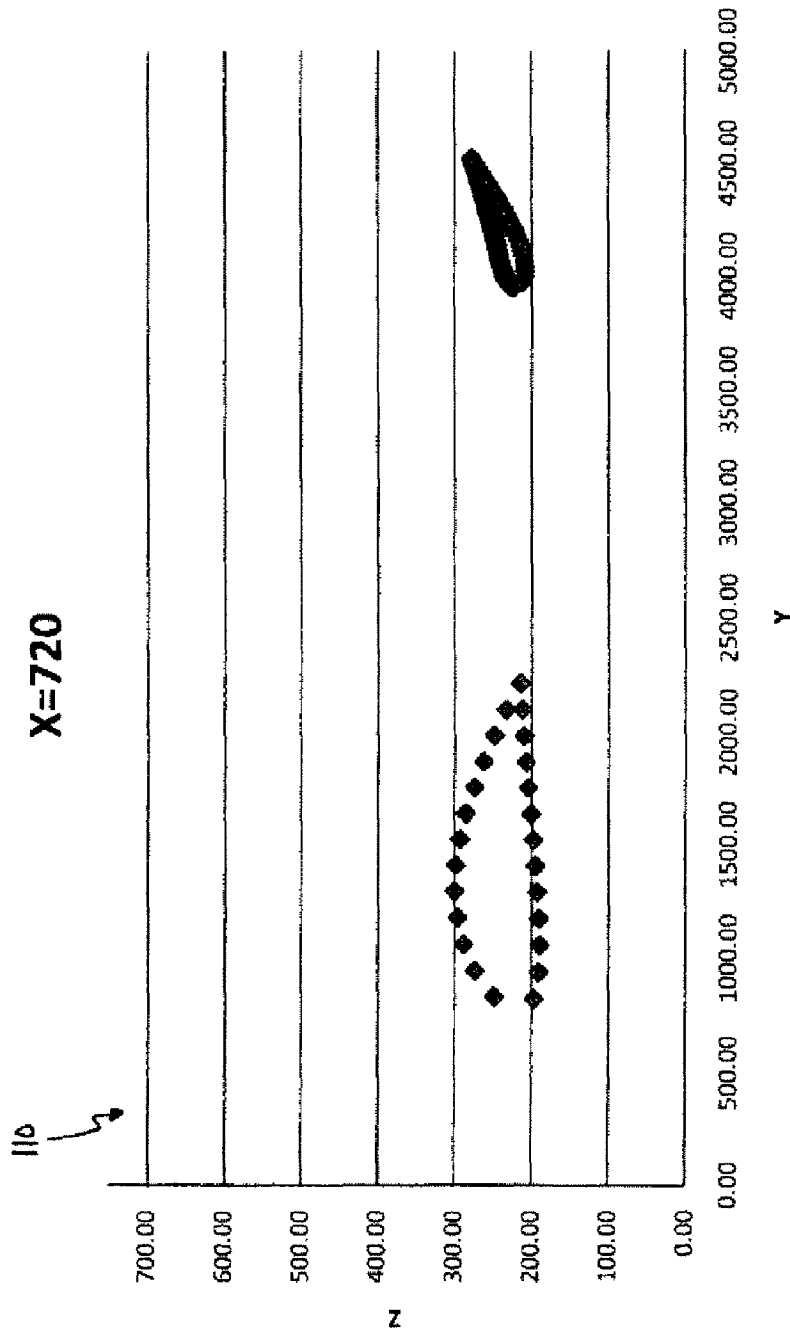


FIG - 11

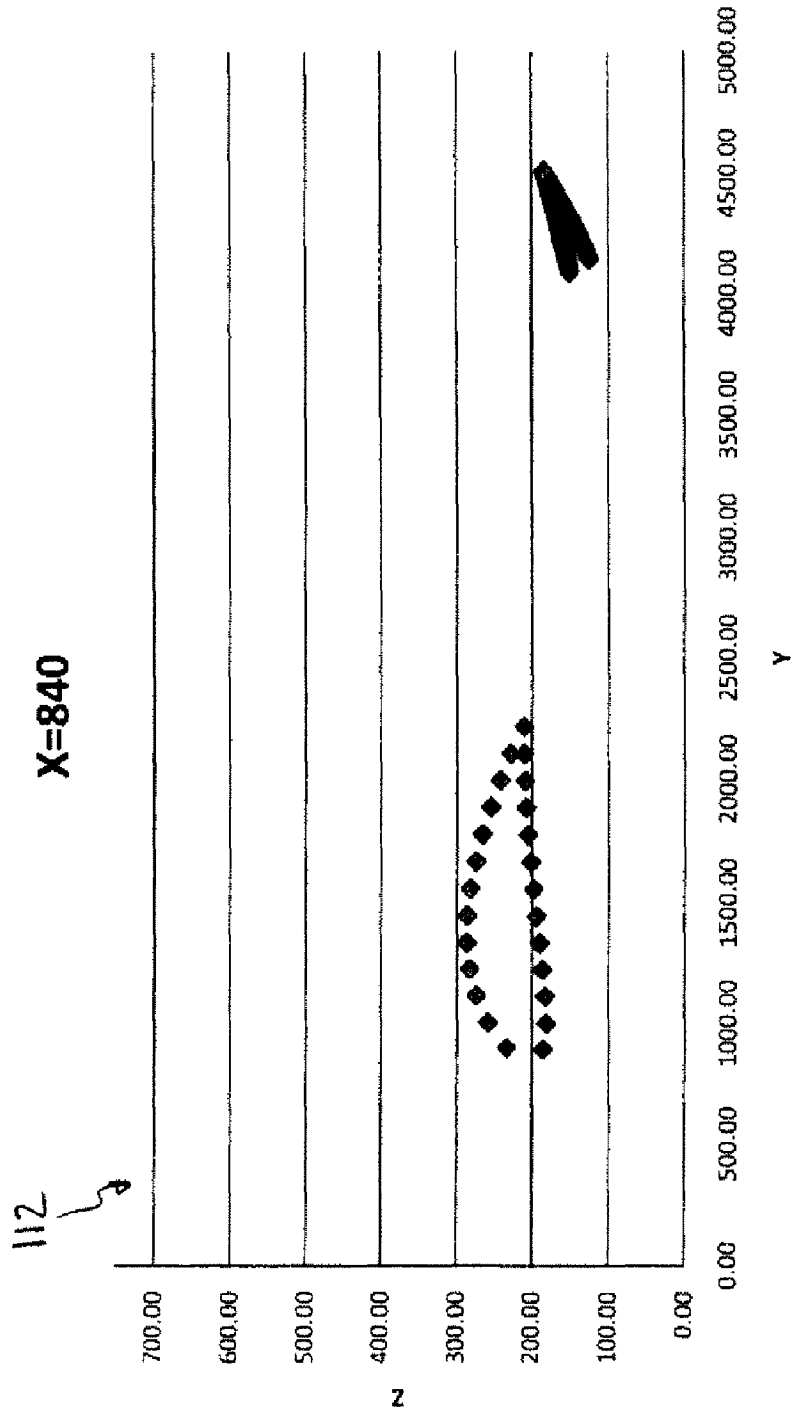


FIG - 12

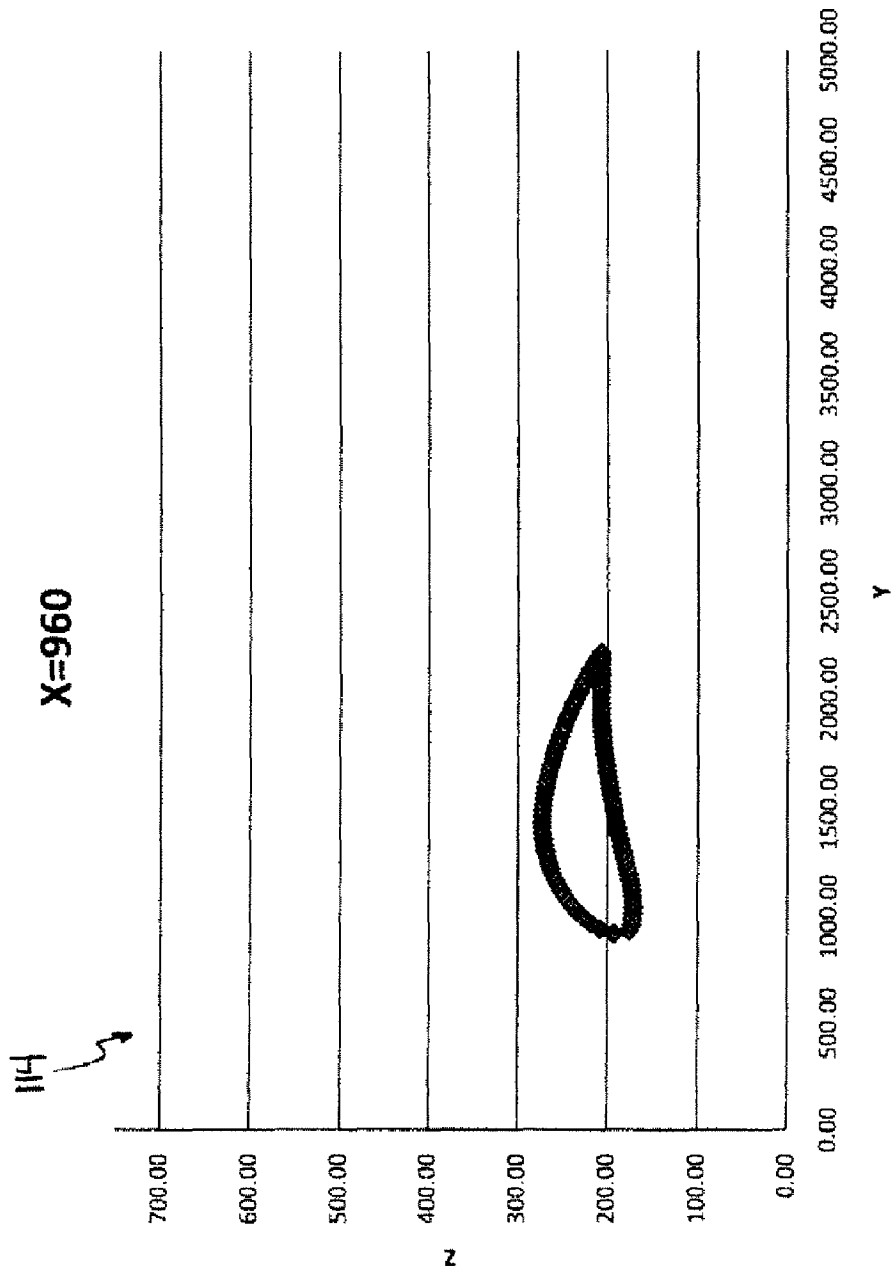


FIG - 13

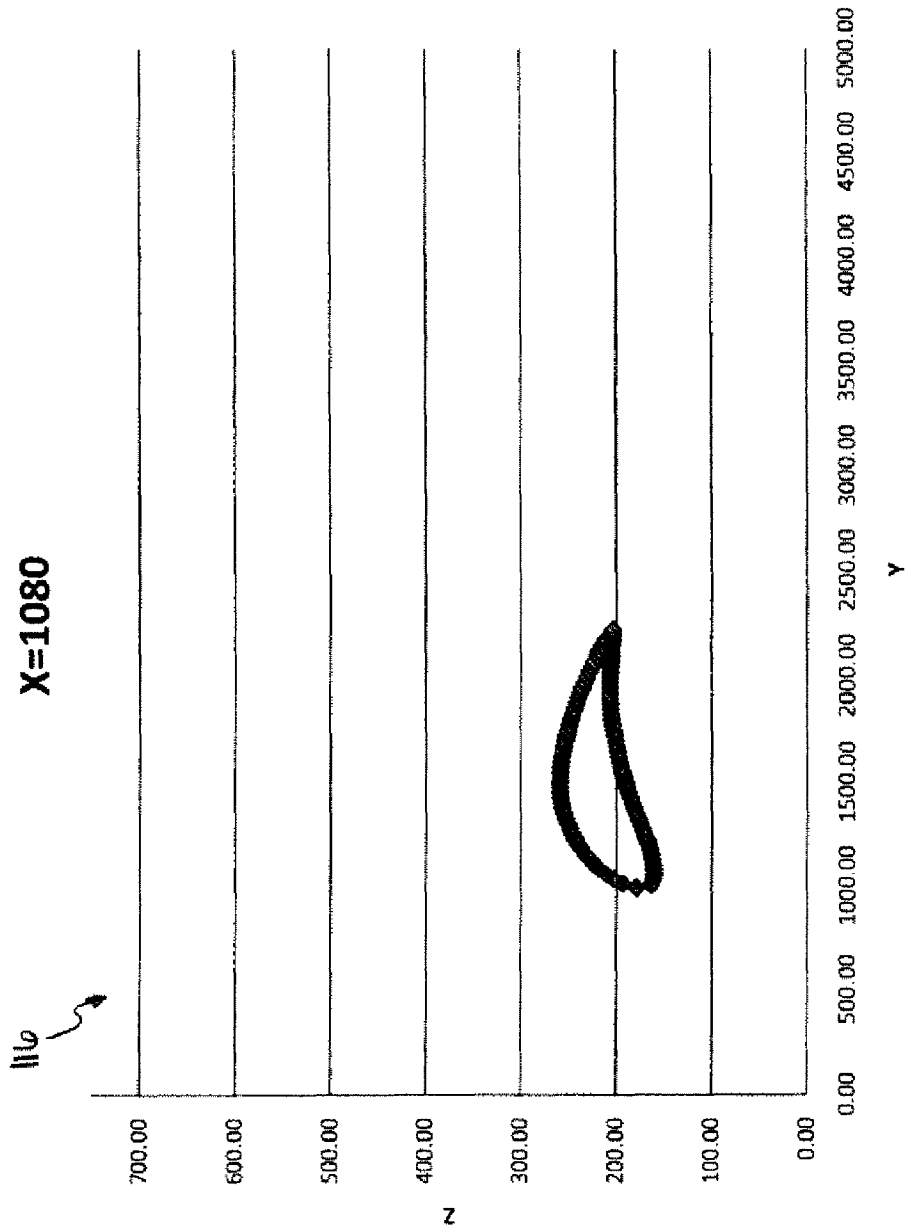


FIG - 14

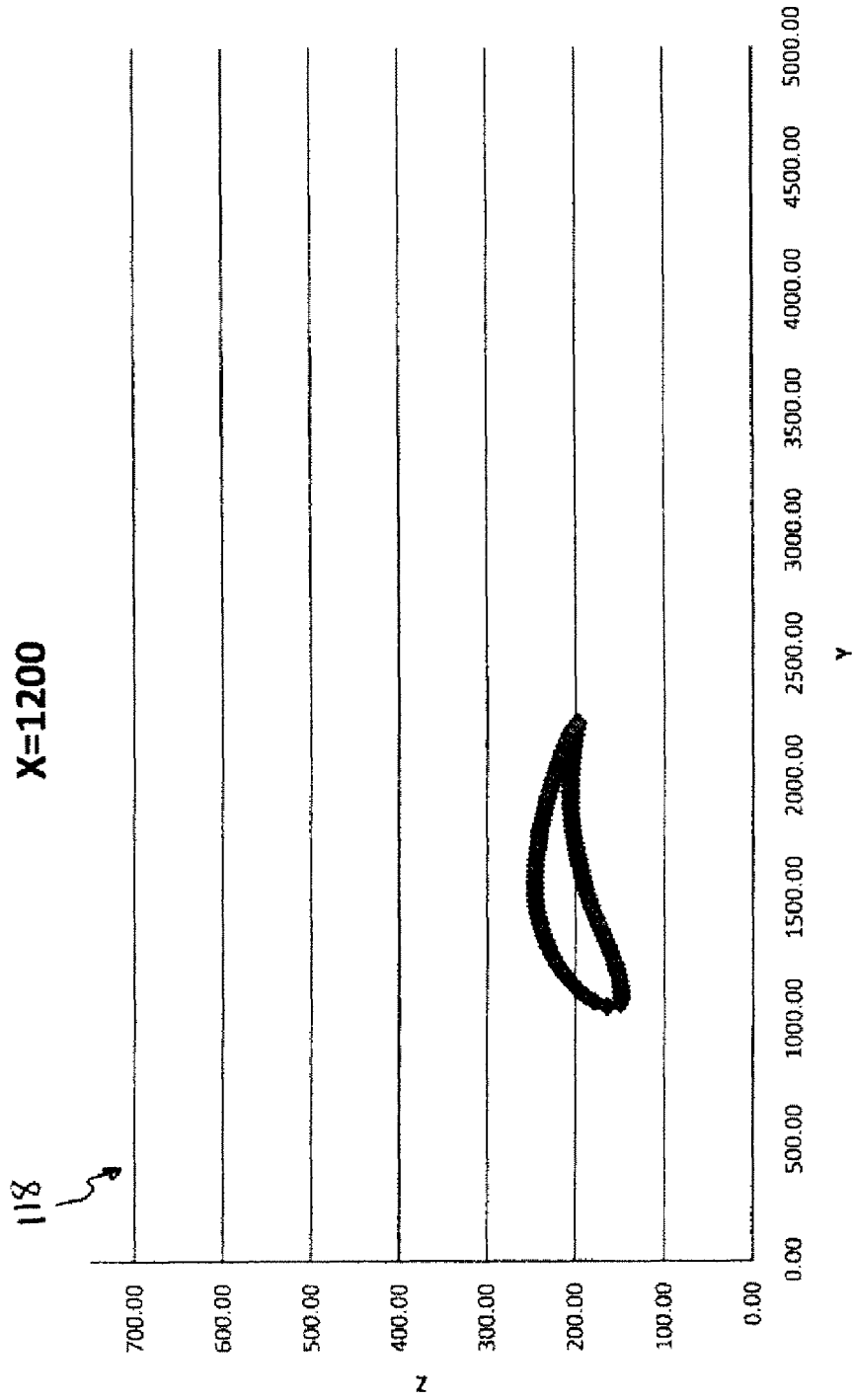


FIG - 15

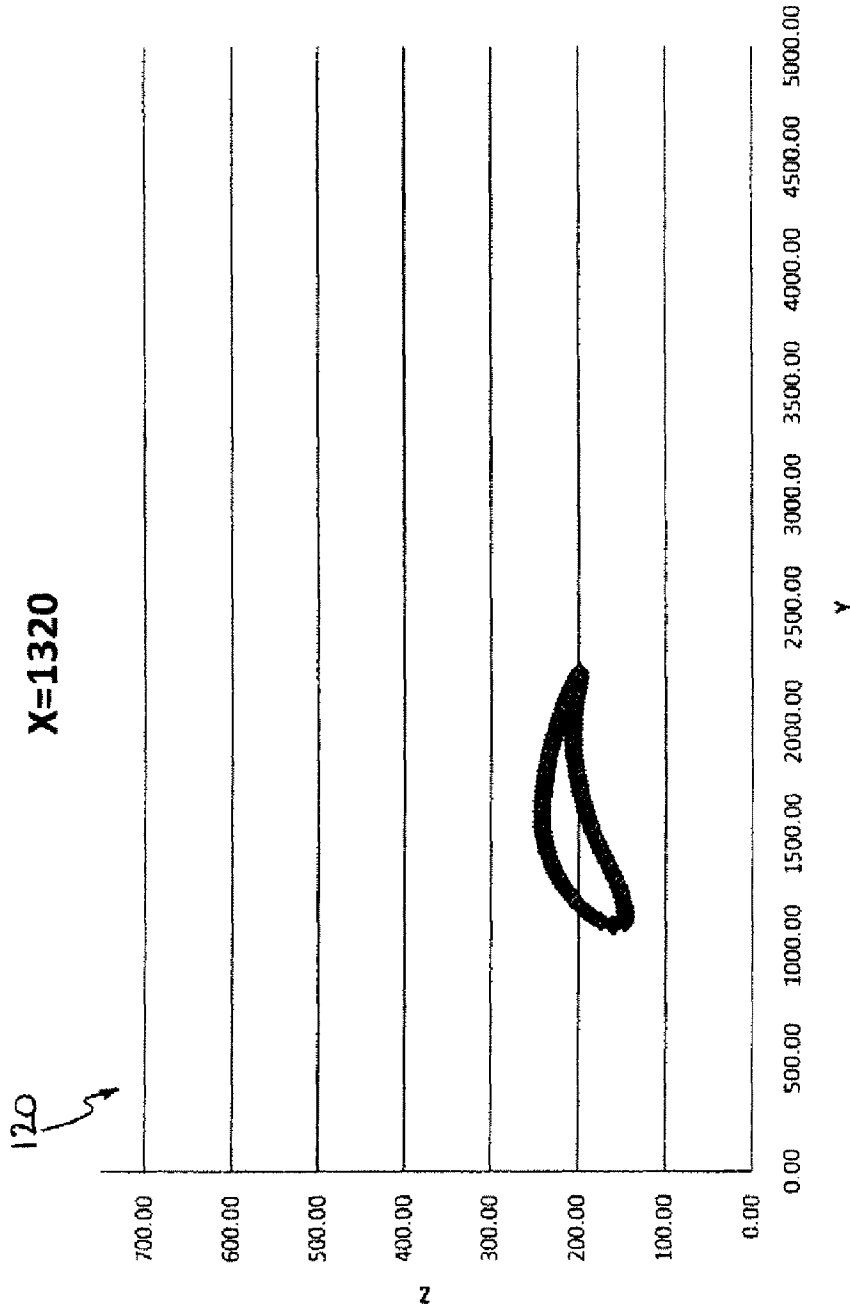


FIG - 16



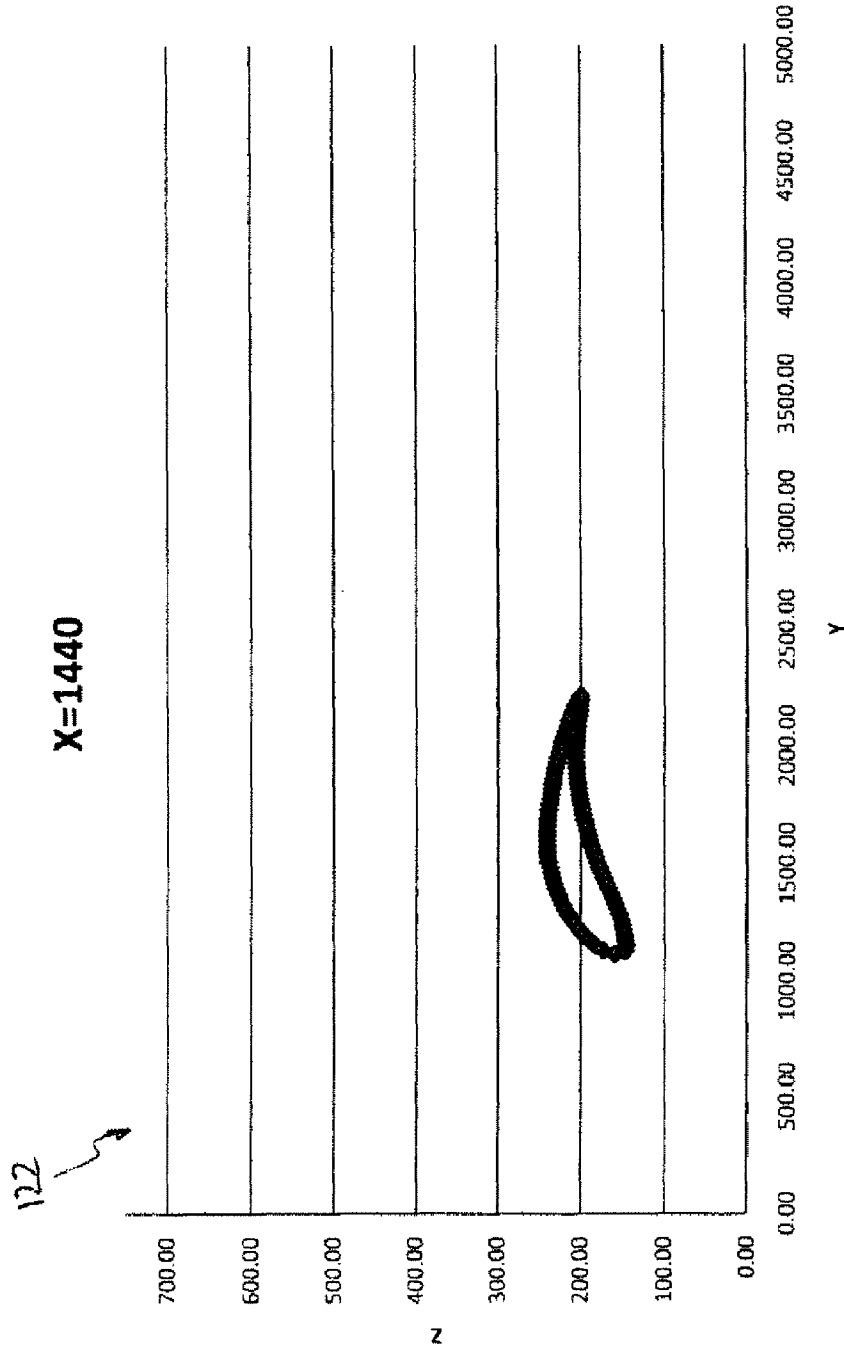


FIG - 17

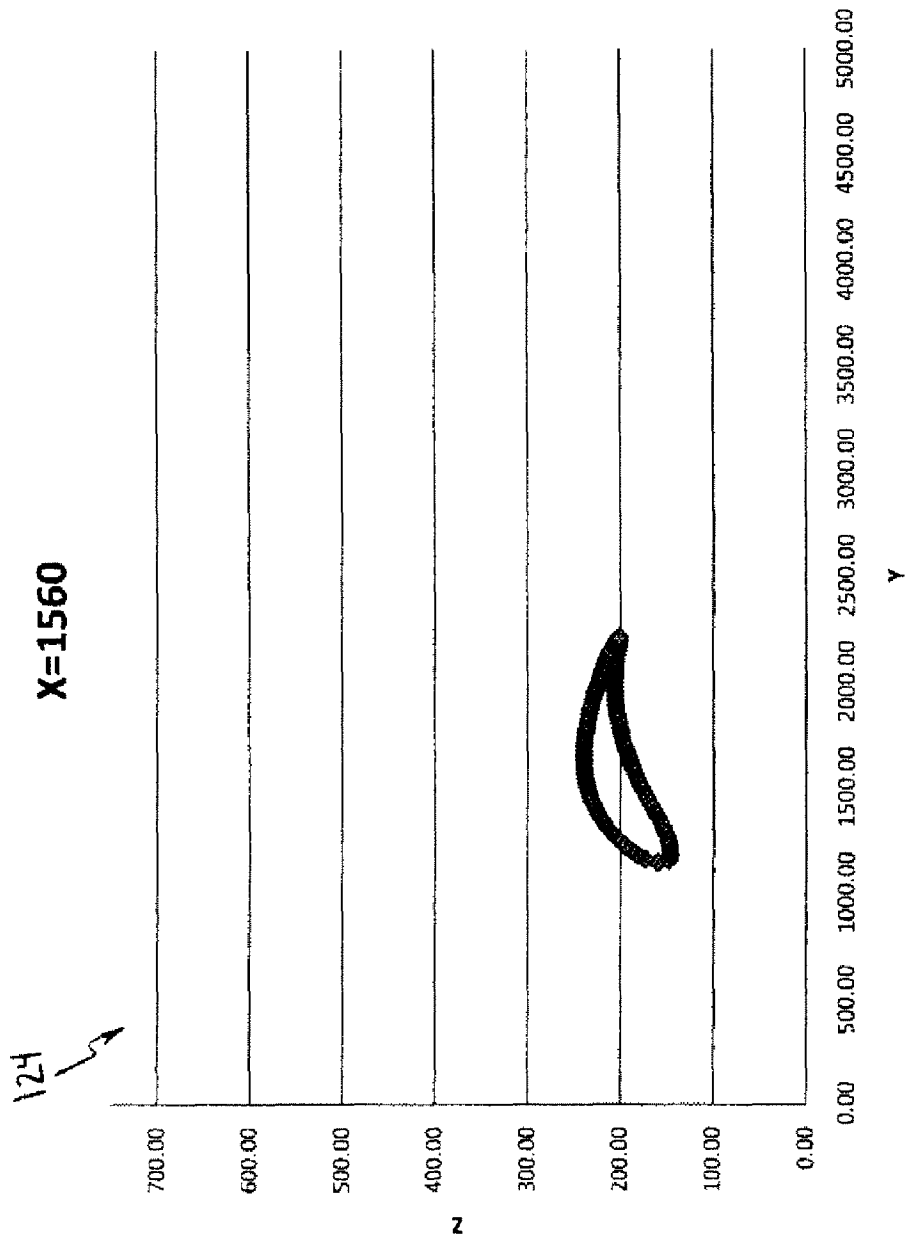


FIG - 18

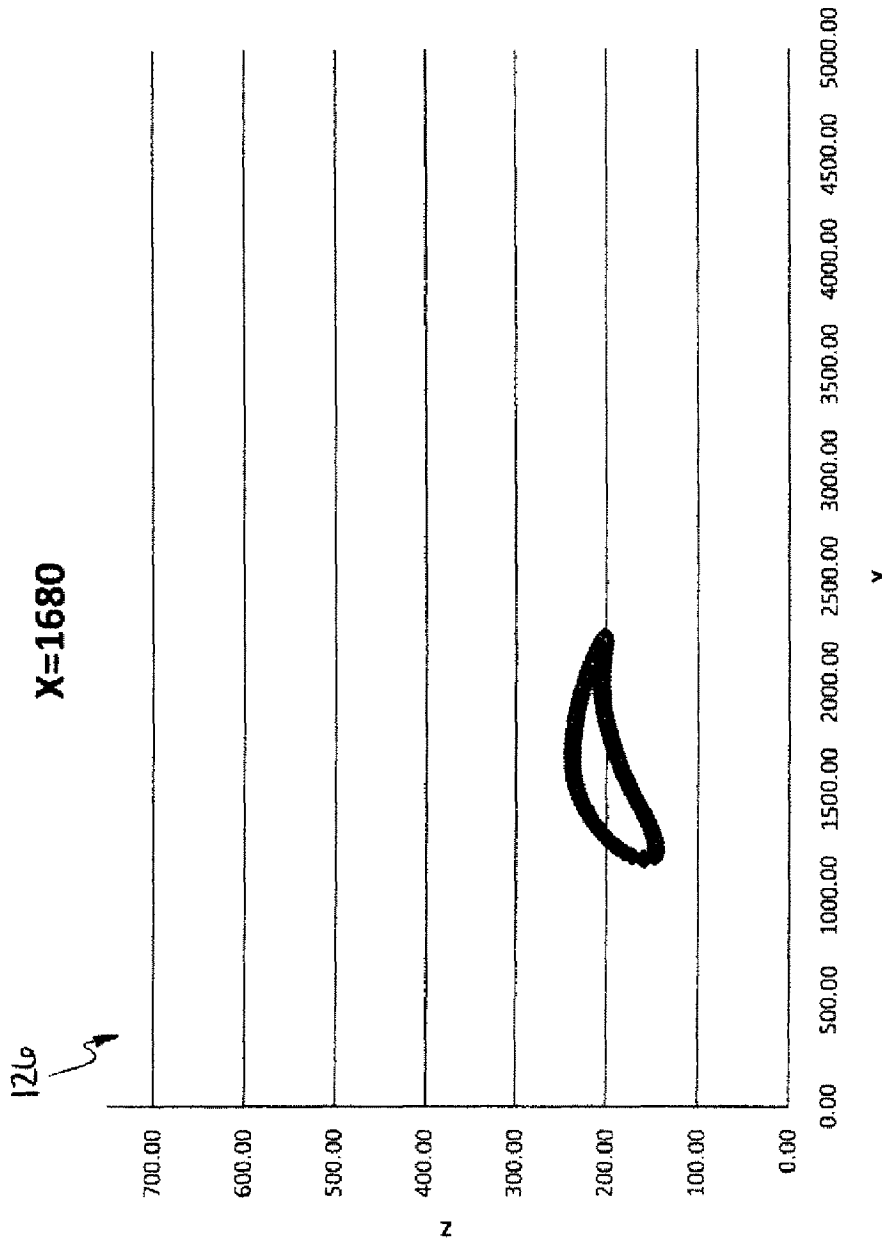


FIG - 19

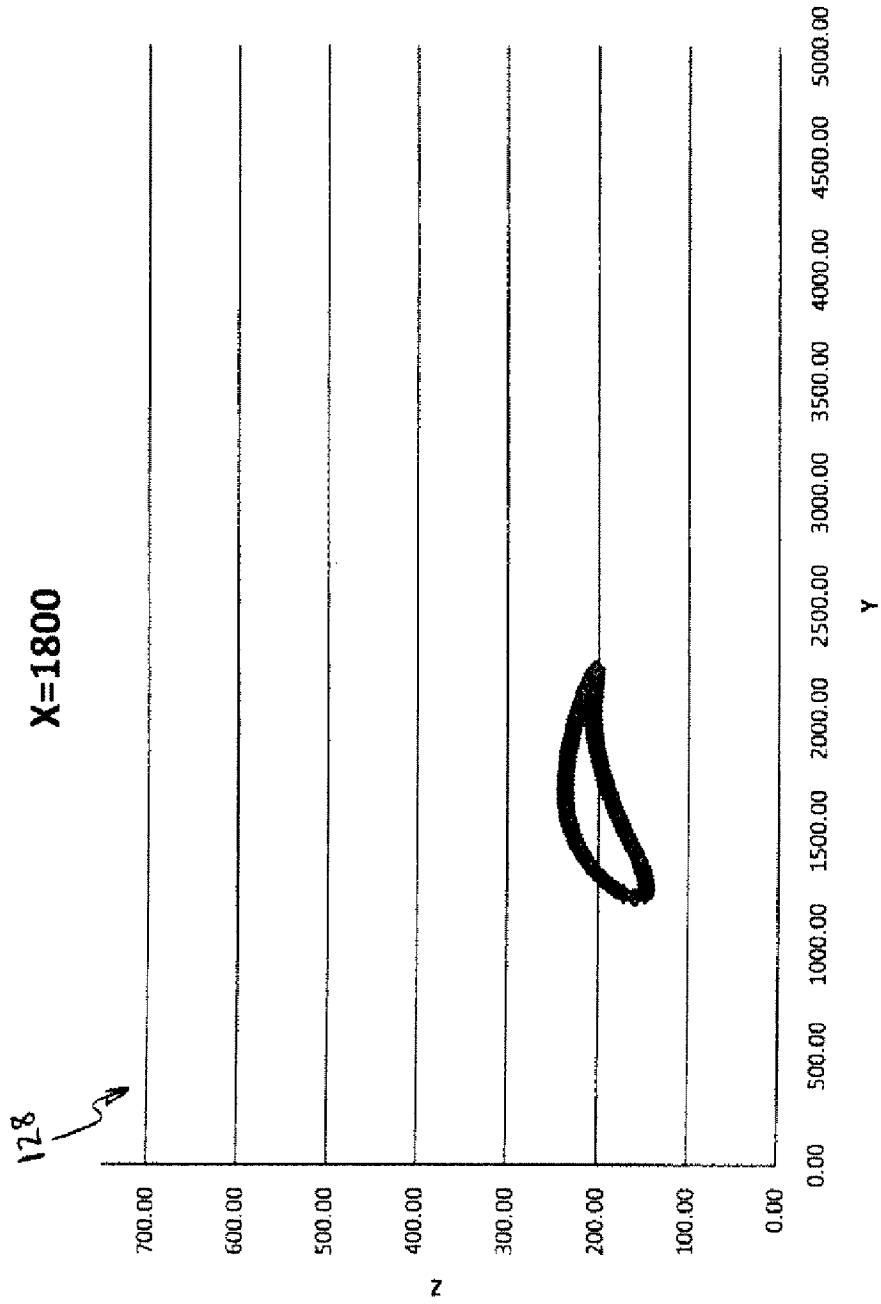


FIG - 20

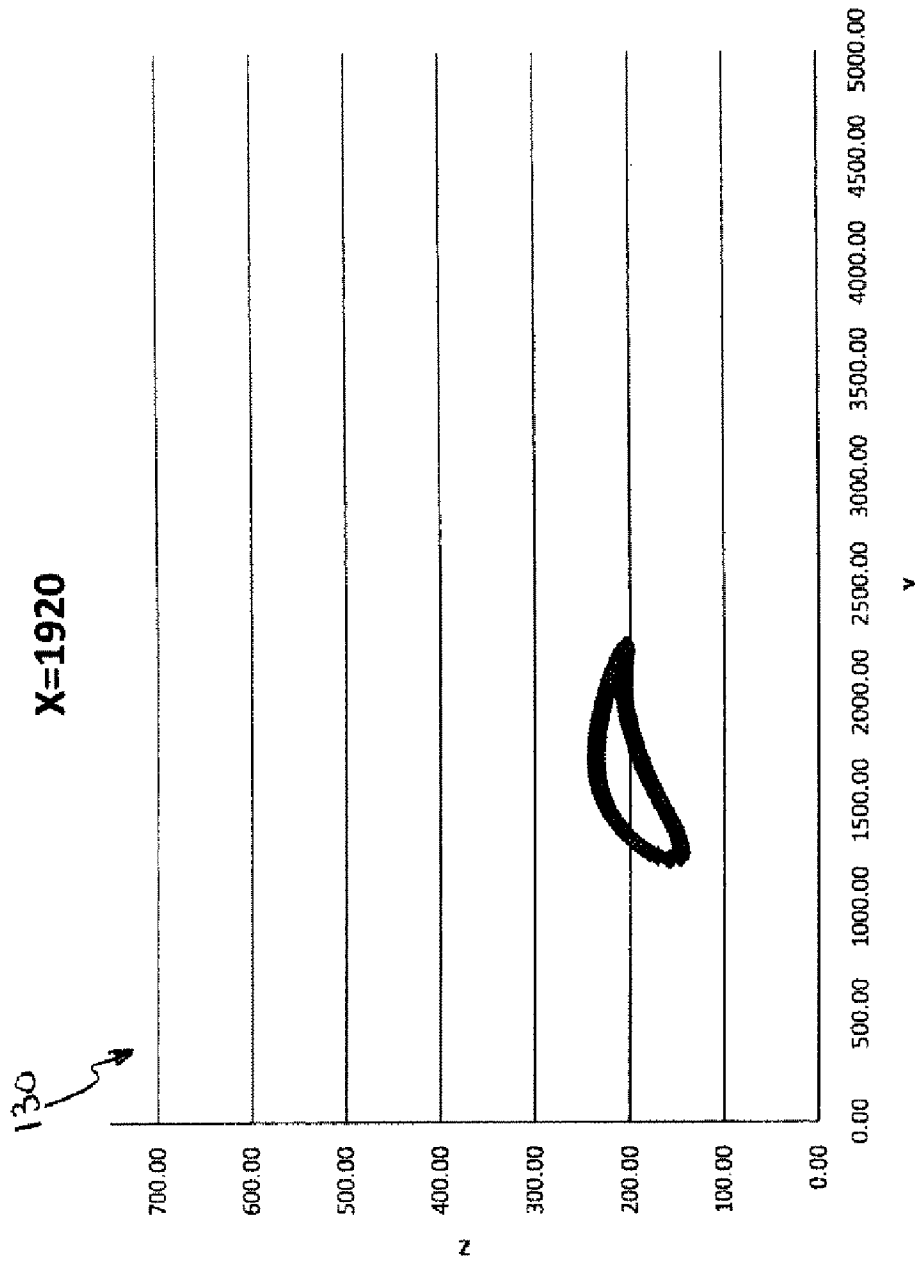


FIG - 21

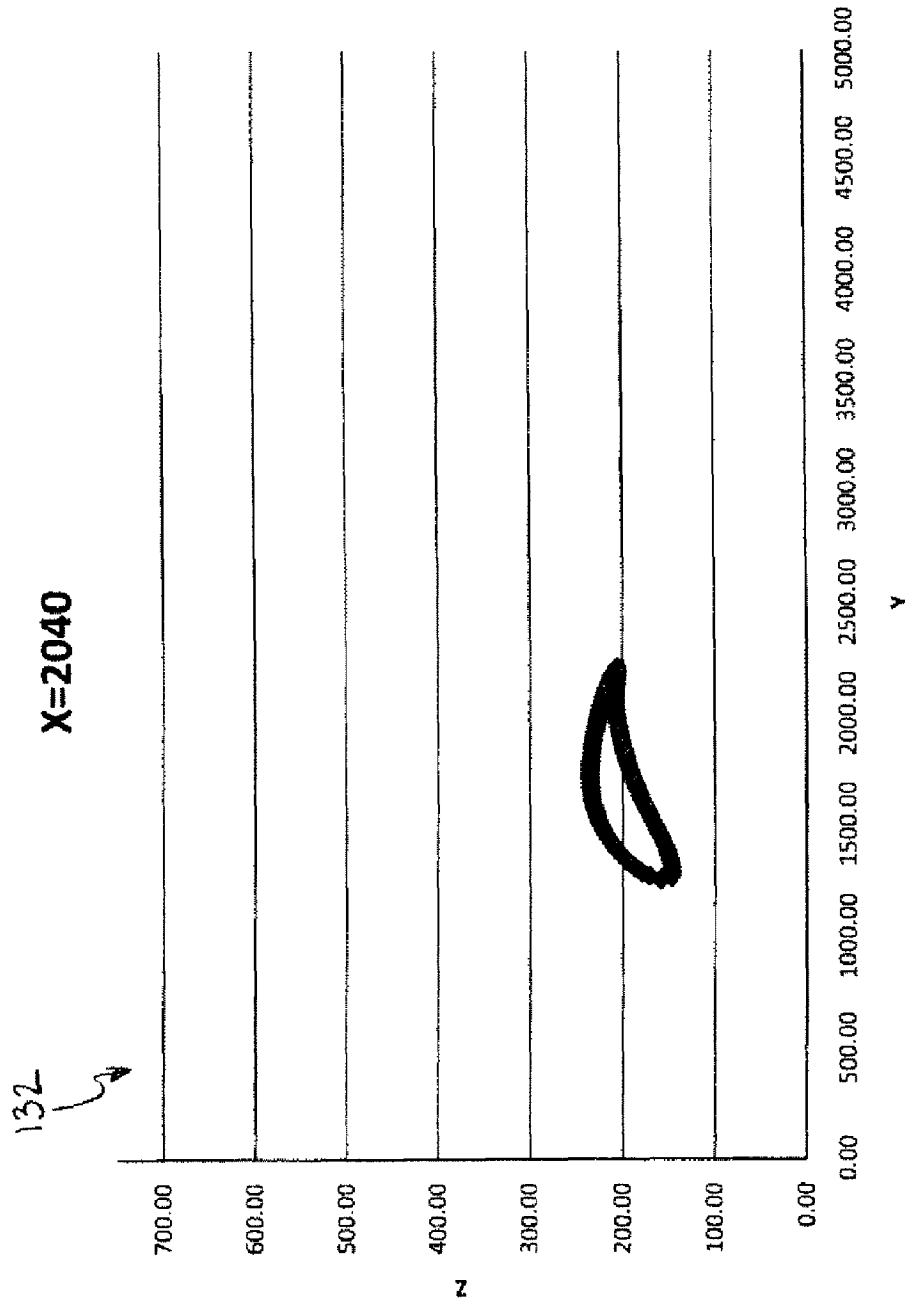


FIG - 22

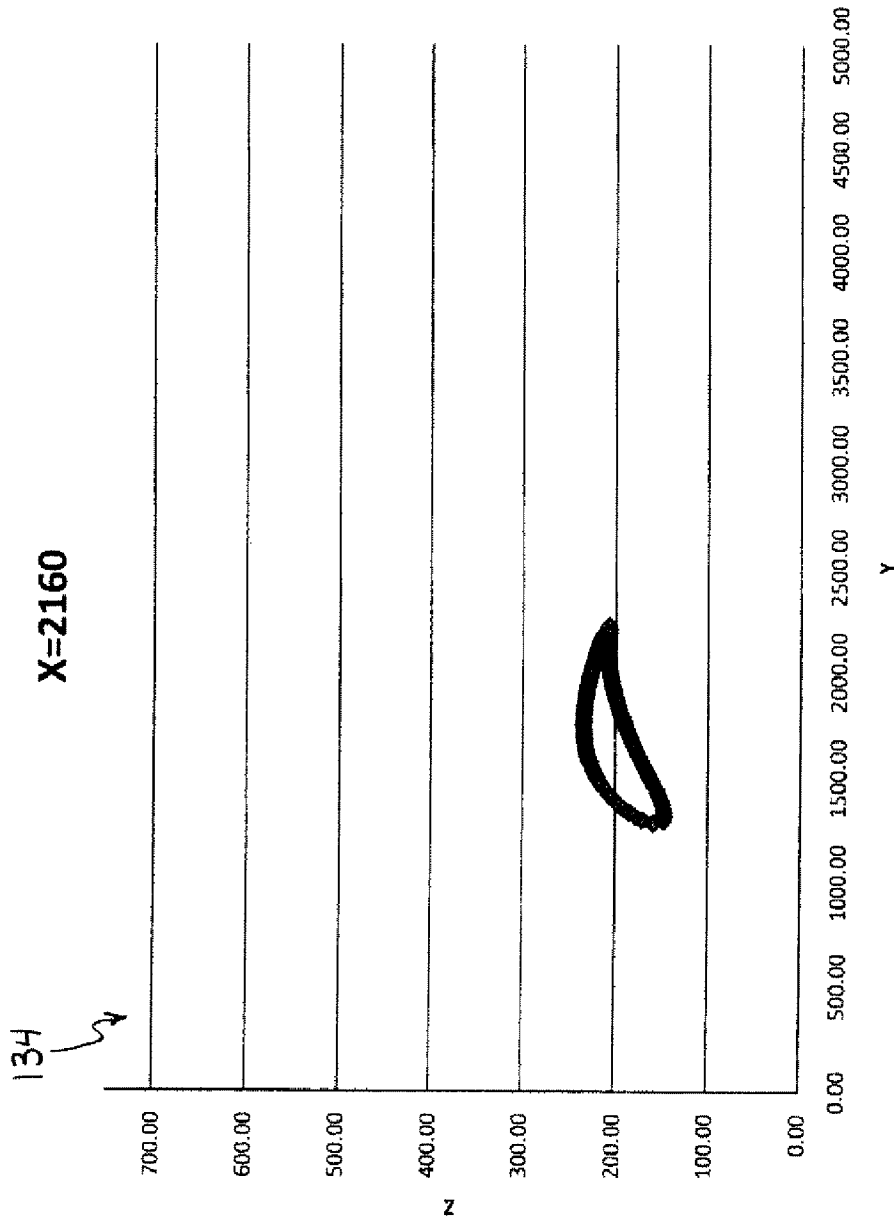


FIG - 23

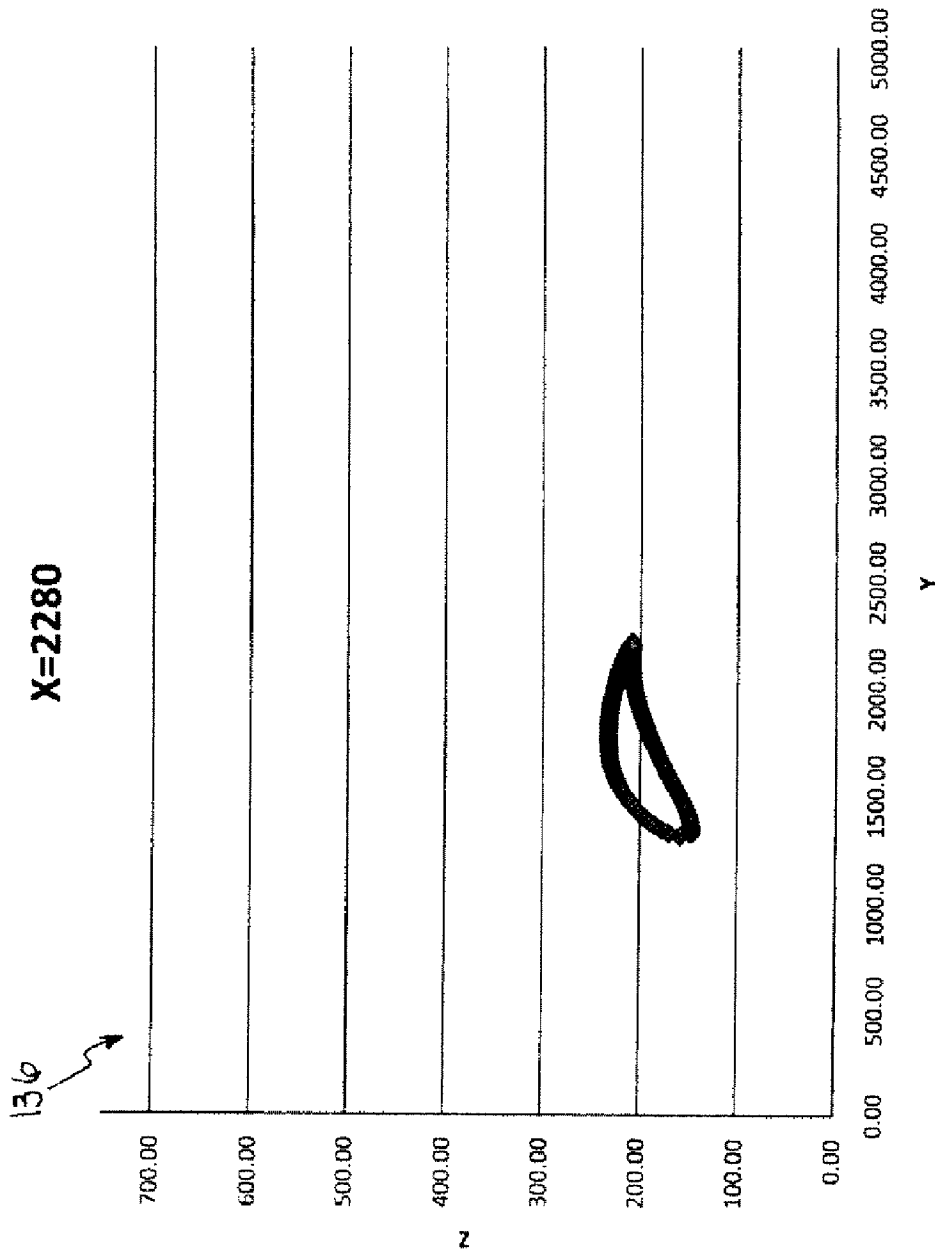


FIG - 24



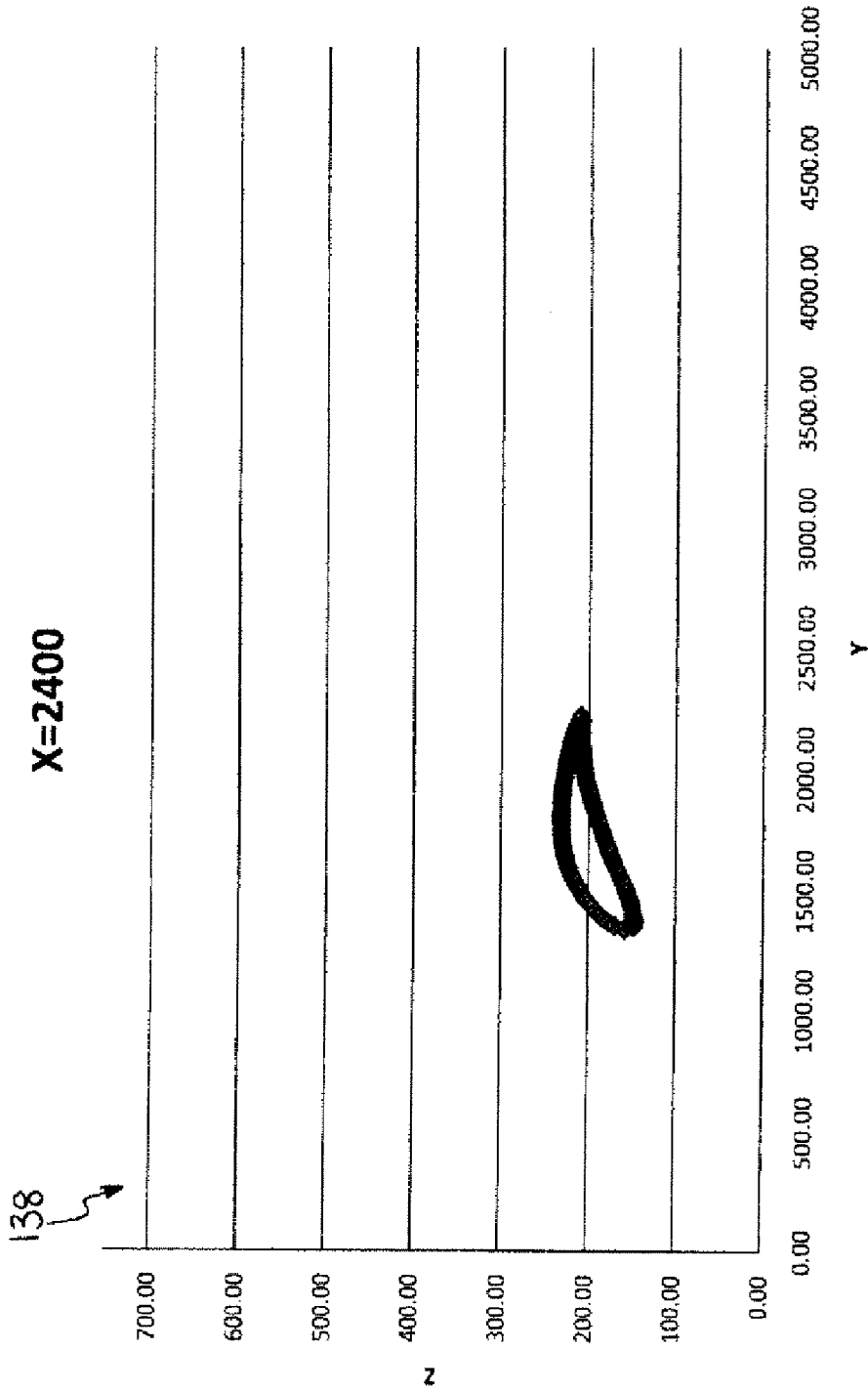


FIG - 25

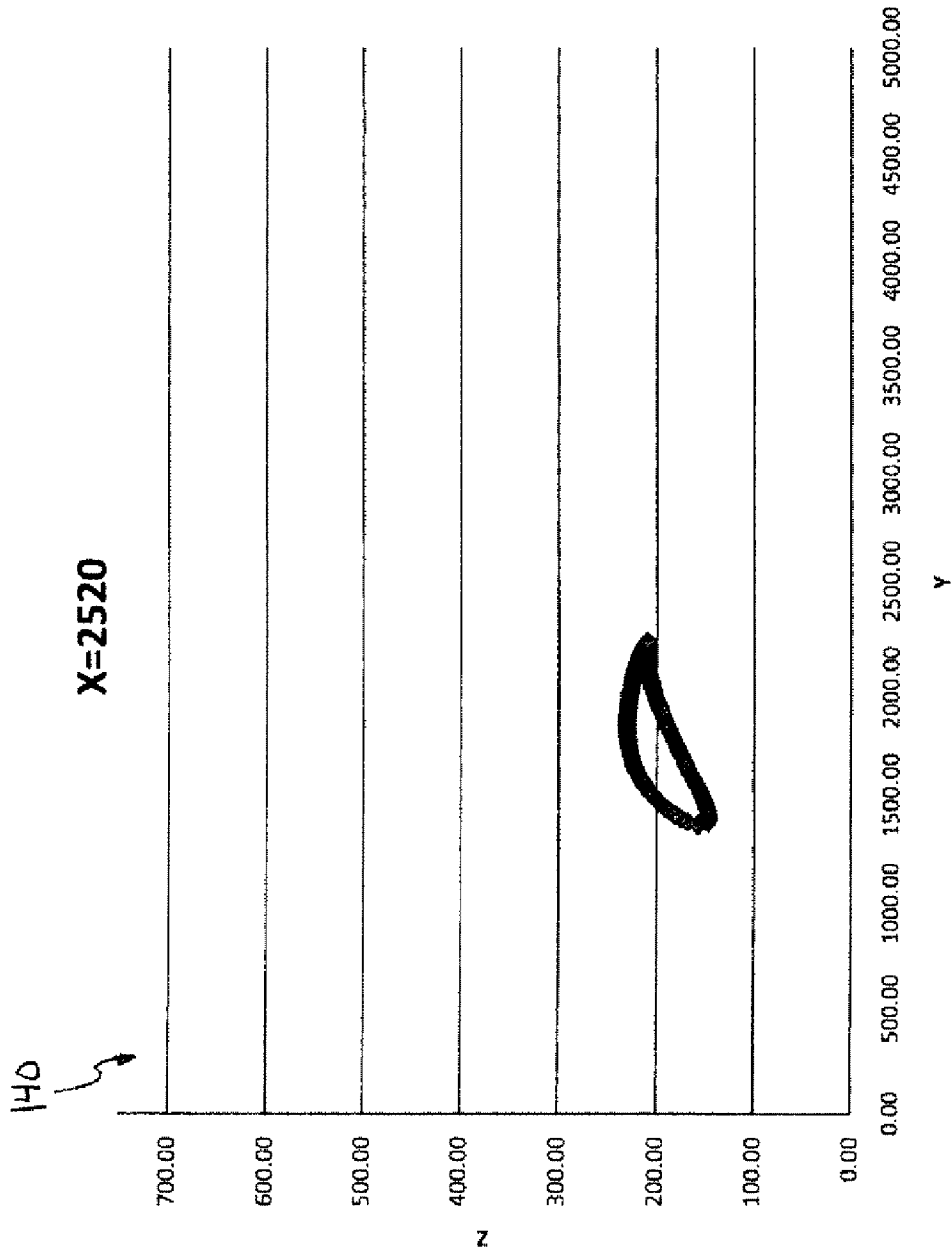


FIG - 26

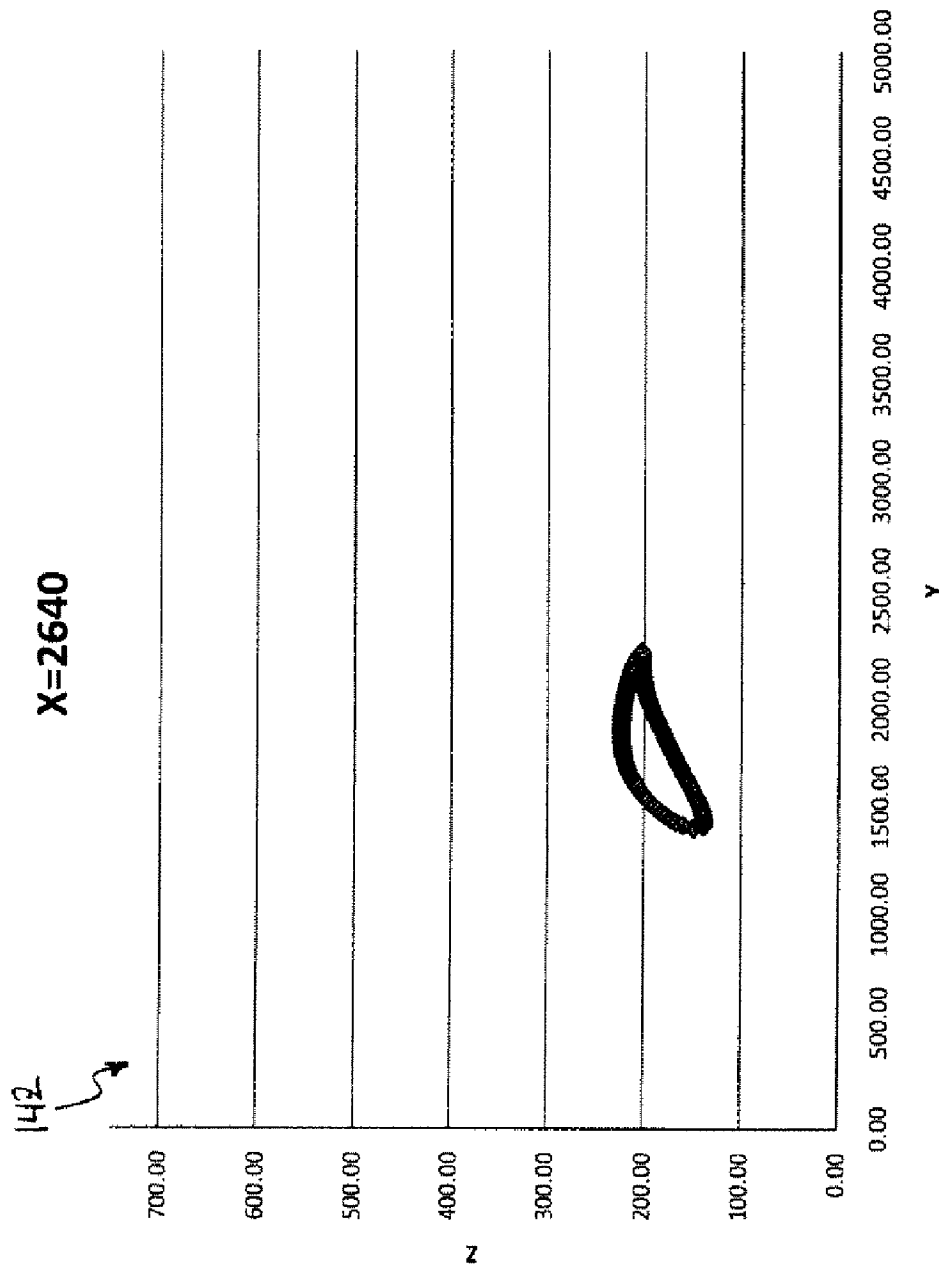


FIG - 27

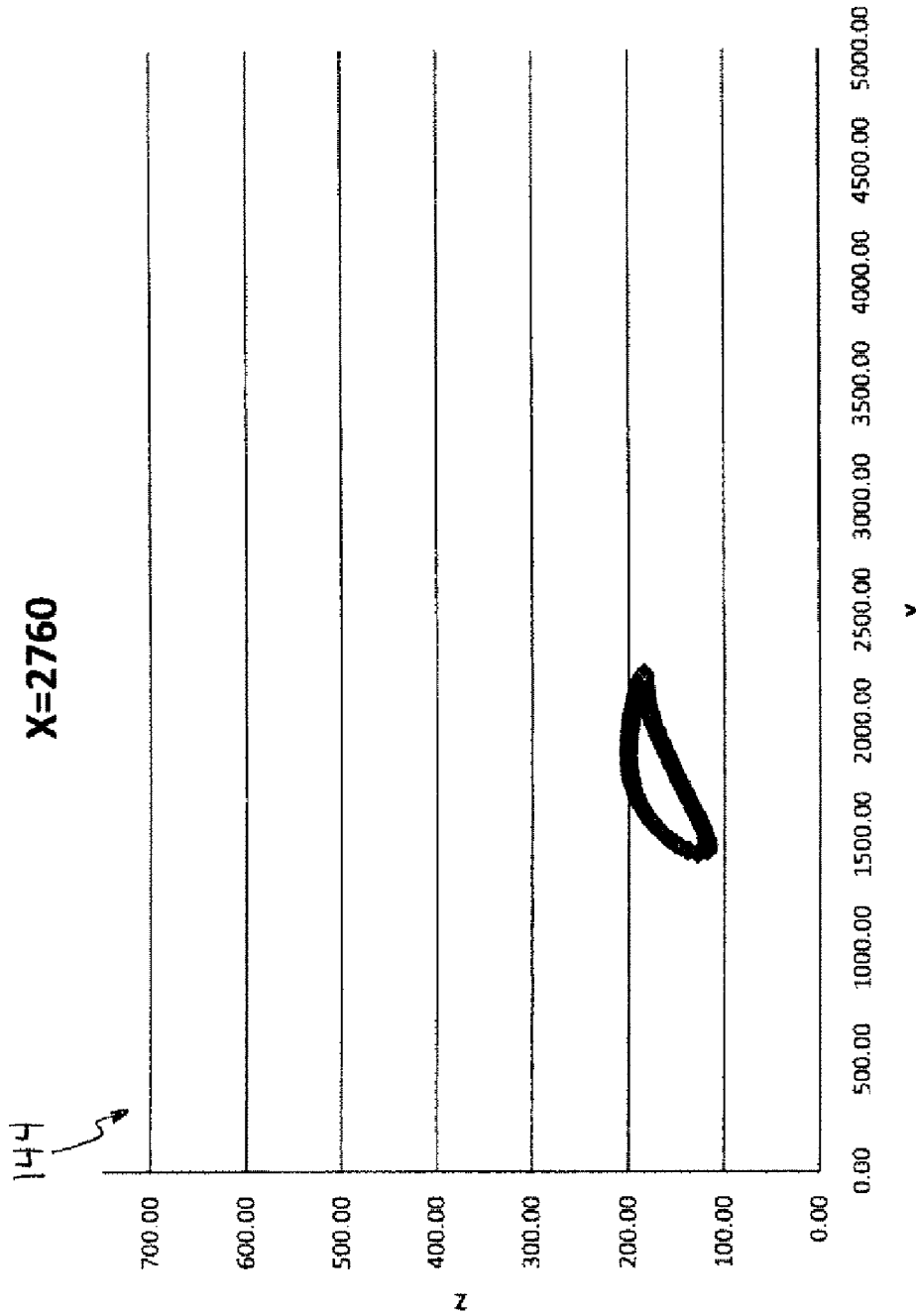


FIG - 28

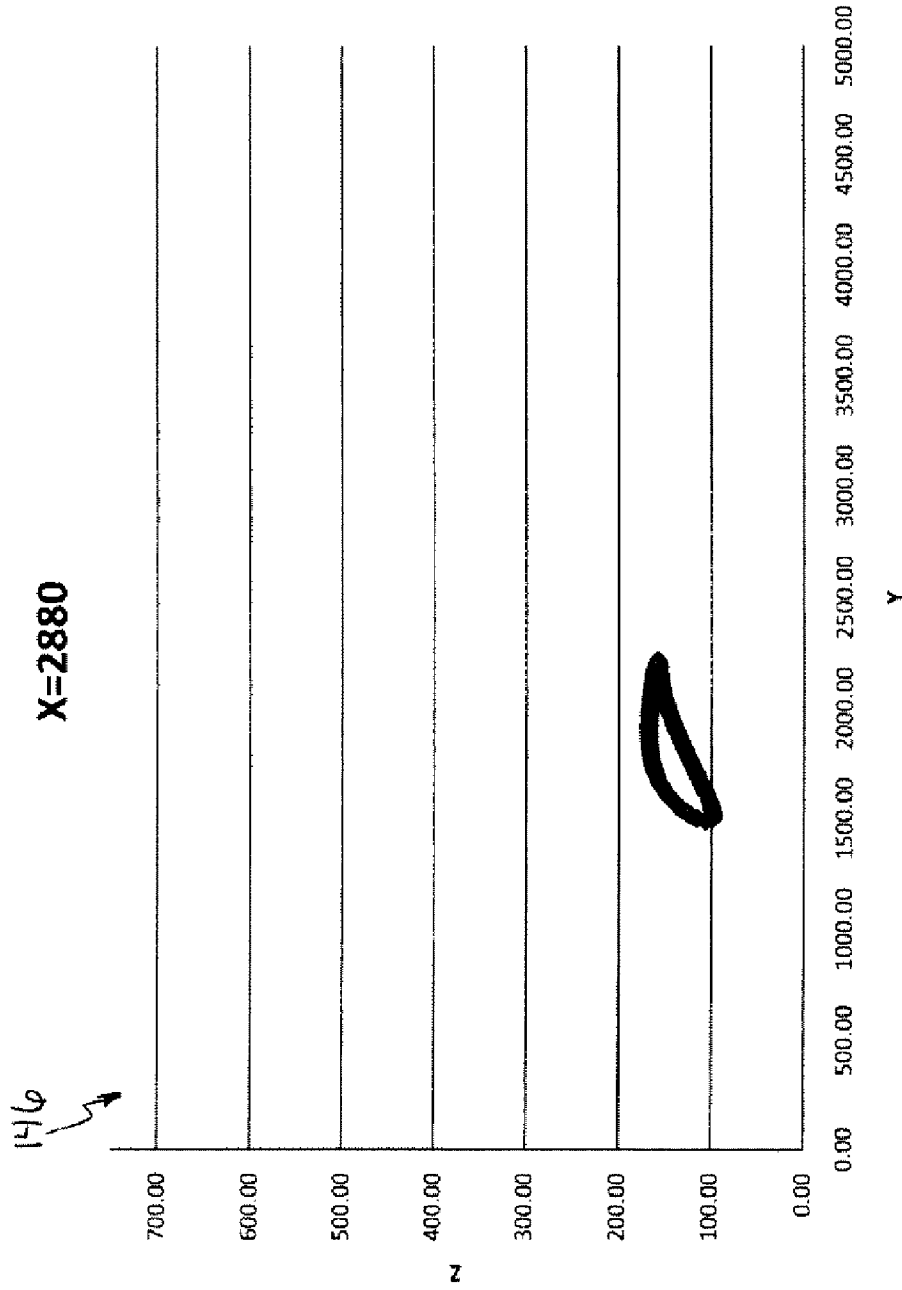


FIG - 29

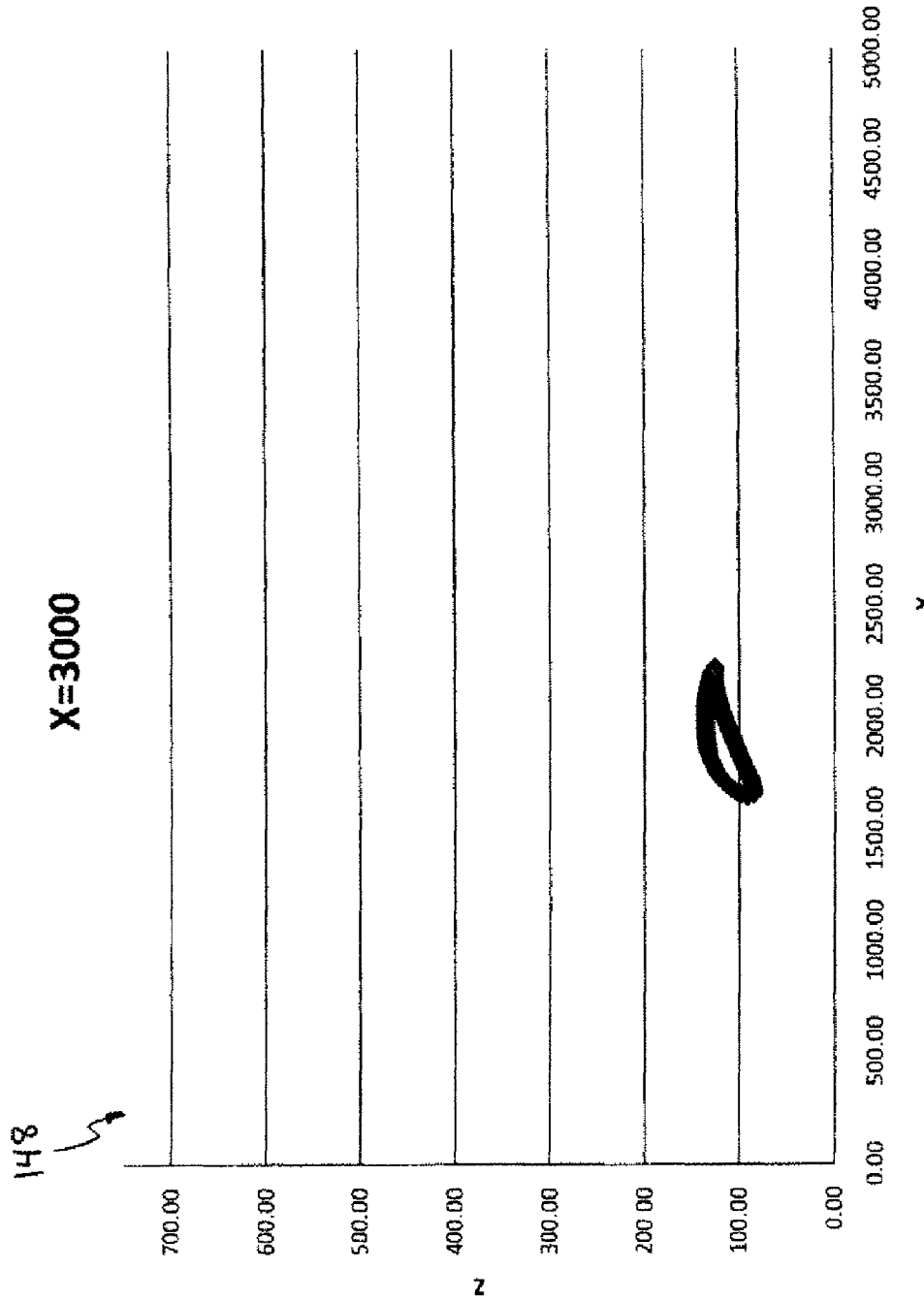


FIG - 30

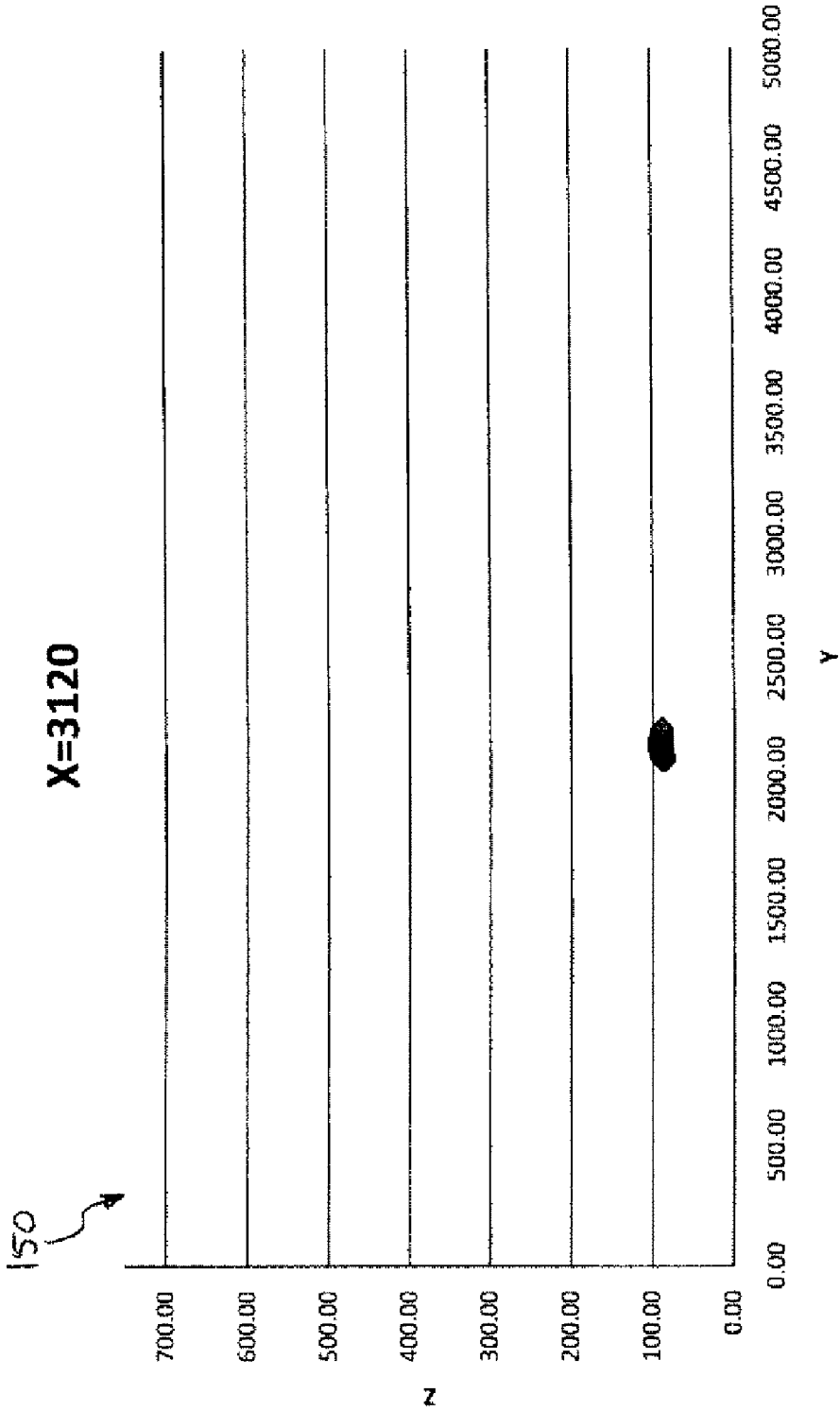


FIG - 31

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## AIRCRAFT CONFIGURED FOR FLIGHT IN AN ATMOSPHERE HAVING LOW DENSITY

### ORIGIN OF THE INVENTION

This invention was made by employees of the United States Government any may be manufactured and used by or for the Government of the United States of America for governmental purposes without the payment of any royalties thereon or therefor.

### TECHNICAL FIELD

The present invention relates to an aircraft configured for flight in an atmosphere having a low density.

### BACKGROUND OF THE INVENTION

The Mars atmosphere is thin and composed mostly of carbon dioxide. The gravity is lower than the gravity on Earth. More specifically, atmospheric density near the Martian surface is roughly equivalent to an altitude of 100,000 feet on Earth. The low atmospheric density leads to a high cruise velocity, but a low Reynolds number. Since the speed of sound on Mars is lower than on Earth, transonic aerodynamic effects are encountered at a lower flight speed. Low atmospheric density also presents difficulty in generating sufficient thrust. Therefore, with such a thin atmosphere, generating enough lift to support airplane weight is difficult and wing loading must be small.

In addition to the challenge of generating sufficient lift and thrust to fly an airplane through the Martian atmosphere, there are challenges associated with getting the airplane to Mars. These challenges include stowage of the airplane in a non-flight configuration and the extraction of the airplane from the non-flight configuration to an in-flight configuration capable of flight in a thin atmosphere.

### SUMMARY OF THE INVENTION

An aircraft is configured for flight in an atmosphere having a low density. The aircraft includes a fuselage, a pair of wings, and a rear stabilizer. The pair of wings extends from the fuselage in opposition to one another. The rear stabilizer extends from the fuselage in spaced relationship to the pair of wings. The fuselage, the wings, and the rear stabilizer each present an upper surface opposing a lower surface. The upper and lower surfaces have X, Y, and Z coordinates that are configured for flight in an atmosphere having low density.

The above features and advantages and other features and advantages of the present invention are readily apparent from the following detailed description of the best modes for carrying out the invention when taken in connection with the accompanying drawings.

### BRIEF DESCRIPTION OF THE DRAWINGS

Referring now to the figures, which are exemplary embodiments and wherein like elements are numbered alike:

FIG. 1A is a schematic plan view of an aircraft in an unfolded position;

FIG. 1B is a schematic partial cross sectional side view of the aircraft of FIG. 1 in a folded position and disposed within an aeroshell;

FIG. 2 is a schematic front view of the aircraft of FIG. 1 in the unfolded position;

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FIG. 3 is a schematic side view of the aircraft of FIG. 1 in the unfolded position;

FIG. 4 is a schematic rear view of the aircraft of FIG. 1 in the unfolded position;

5 FIG. 5 is a schematic view of a rear stabilizer of the aircraft of FIG. 1;

FIG. 6 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 120.0;

10 FIG. 7 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 240.0;

15 FIG. 8 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 360.0;

FIG. 9 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 480.0;

20 FIG. 10 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 600.0;

FIG. 11 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 720.0;

25 FIG. 12 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 840.0;

FIG. 13 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 960.0;

30 FIG. 14 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1080.0;

35 FIG. 15 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1200.0;

FIG. 16 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1320.0;

40 FIG. 17 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1440.0;

45 FIG. 18 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1560.0;

FIG. 19 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1680.0;

50 FIG. 20 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1800.0;

FIG. 21 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 1920.0;

55 FIG. 22 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2040.0;

FIG. 23 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2160.0;

60 FIG. 24 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2280.0;

65 FIG. 25 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2400.0;



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FIG. 26 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2520.0;

FIG. 27 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2640.0;

FIG. 28 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2760.0;

FIG. 29 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 2880.0;

FIG. 30 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 3000.0; and

FIG. 31 is a graphical representation of Y and Z positions of upper and lower surfaces of the aircraft of FIG. 1 taken at an X position substantially equal to 3120.0.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawings, wherein like reference numbers refer to like components, FIG. 1 shows an aircraft 10 configured for flight in an atmosphere having a low density. More specifically, the aircraft 10 includes a fuselage 12, a pair of wings 14, and a rear stabilizer 16. A stabilizer bar 18 operatively interconnects the fuselage 12 and the rear stabilizer 16.

The aircraft 10 is configured to move between an unfolded position 20, as shown in FIG. 1A, and a folded position 22, as shown in FIG. 1B, and vice versa. When the aircraft 10 is in the folded position 22, the aircraft 10 is configured to fit within volumetric space limitations of an aeroshell 24 (or similar capsule) of a launch vehicle, i.e., a Delta II, and the like (not shown). More specifically, the aircraft 10 is configured to move between the folded position 22 and the unfolded position 20 with only three folds 26a, 26b, 26c. Two of the folds 26a, 26b are on a respective wing 14 and the third fold 26c is on the stabilizer bar 18. Therefore, each of the wings 14 is foldable, relative to the fuselage 12, along the fold 26a, 26b, i.e., a wing hinge. Likewise, the rear stabilizer 16 is foldable, relative to the fuselage 12, along the fold 26c, i.e., a stabilizer hinge. It should be appreciated, however, that the aircraft 10 may be configured with any other desired number of folds, as known to those skilled in the art.

The aircraft 10 is also configured to have a desired mass and mass distribution when in the folded position 22 such that the aircraft 10 is transported stably within the launch vehicle. Likewise, the aircraft 10 is configured such that the mass and mass distribution provides stability in the unfolded position 20, for flight, without any artificial augmentation. A structural arrangement, i.e., internally and externally, is configured such that the aircraft 10 survives loads associated with launch and reentry (Earth and Mars, Earth and Earth, respectively). The aircraft 10 is also configured with a desired propulsion system duration, power, and efficiency to provide required speed and endurance. Additionally, the aircraft 10 is configured to have adequate payload capacity in both volume and mass available, while allowing any required subsystems to exist, e.g., batteries, guidance, control, telemetry, etc.

When the airplane is stowed in the launch vehicle in the folded position 22 within the confined volume, the airplane is configured to be transported via flight, e.g., via a rocket and the like, and released from the confined volume during flight. When the aircraft 10 is released from the confined volume of the launch vehicle during flight, the aircraft 10 is configured such that the wings 14 and the rear stabilizer 16 unfold about

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the respective folds. Once the aircraft 10 is in the unfolded position 20, the aircraft 10 is configured for controlled flight in low density, such as around Mars. It should be appreciated, however, that the aircraft 10 is not limited to flight around Mars as the aircraft 10 is configured for flight in any planetary atmosphere with a low density.

Referring to FIGS. 1A-5, the fuselage 12, the pair of wings 14, and the rear stabilizer 16 present an upper surface 28 opposing a lower surface 30. The geometry of the upper and lower surfaces 28, 30 provides the requisite aerodynamic properties to the aircraft 10, such as lift and drag, such that flight in low density can be achieved. The upper and lower surfaces 28, 30 are defined at X, Y, and Z locations in a 3-dimensional X, Y, Z configuration. The X positions are defined along an X axis that generally extends between the wings 14. The Y locations are defined along a Y axis that extends along the fuselage 12, in perpendicular relationship to the x-axis. The Z locations are defined along a Z axis that generally extends in perpendicular relationship to the X axis and the Y axis. The upper and lower surfaces 28, 30 are defined at Y and Z positions corresponding substantially to an X position of 120.0, as shown in Table 1 and at 100 in FIG. 6.

TABLE 1

Y	Z
1005.68	117.26
1037.25	437.34
1049.79	117.67
1081.35	438.41
1093.9	118.26
1125.46	438.83
1138	119.03
1169.57	438.6
1182.11	119.96
1213.67	437.72
1226.2	121.01
1257.75	436.19
1270.3	122.11
1301.81	434.01
1314.4	123.2
1345.83	431.19
1358.5	124.3
1389.81	427.74
1402.59	125.48
1433.73	423.67
1446.68	126.77
1477.59	419.01
1490.77	128.22
1521.39	413.76
1534.85	129.87
1565.12	407.93
1578.92	131.74
1608.77	401.56
1622.98	133.88
1652.34	394.68
1667.02	136.33
1695.83	387.34
1711.05	139.13
1739.27	379.66
1755.04	142.31
1782.65	371.68
1799.01	145.91
1825.98	363.42
1842.93	149.98
1869.25	354.84
1886.8	154.56
1912.45	345.9
191.27	193.72
1930.61	159.67
1955.57	336.63
195.79	236.57
1974.36	165.31
1998.63	327.04
2018.04	171.45

5

TABLE 1-continued

Y	Z
2041.63	317.21
2061.66	178.05
2084.61	307.28
2105.22	185.01
2127.58	297.33
2148.72	192.28
2170.47	287.02
217.43	159.25
2192.19	199.79
2213.16	275.91
2235.63	207.48
223.69	270.3
2255.58	263.8
2279.04	215.29
2297.8	251.03
2321.2	224.19
257.36	140.96
260.67	294.21
300.44	131.64
300.83	312.4
342.35	327.29
344.24	126.54
3744.64	668.04
3758.76	679.04
3765.49	654.1
3778.09	682.59
3784.17	650.65
3797.57	685.21
3803.05	648.55
3817.1	687.46
3822.01	647.3
3836.67	689.38
3840.99	646.64
384.41	340.58
3856.25	691.1
3859.99	646.44
3875.86	692.61
3878.99	646.57
388.22	123.63
3895.47	694
3897.98	647.01
3915.08	695.32
3916.97	647.73
3934.71	696.47
3935.94	648.72
3954.35	697.51
3954.91	649.85
3973.87	651.12
3973.98	698.57
3992.81	652.63
3993.61	699.65
4011.73	654.36
4013.25	700.76
4030.63	656.29
4032.88	701.89
4049.51	658.39
4052.51	703.04
4068.38	660.63
4072.14	704.2
4087.23	662.99
4091.77	705.37
4106.07	665.47
4111.39	706.53
4124.89	668.04
4131.02	707.69
4143.7	670.71
4150.65	708.86
4162.5	673.48
4166.85	699.98
4181.28	676.32
4181.67	687.05
4198.83	681.03
4200.06	679.25
4218.82	682.24
426.85	352.58
432.29	121.8
469.58	363.51
476.39	120.56

6

TABLE 1-continued

Y	Z
512.54	373.55
520.48	119.5
555.68	382.76
564.59	118.6
598.98	391.18
608.69	117.9
642.42	398.84
652.8	117.4
685.98	405.76
696.91	117.05
729.65	411.98
741.02	116.83
773.41	417.53
785.13	116.7
817.25	422.43
829.24	116.66
861.15	426.68
873.35	116.71
905.12	430.3
917.46	116.82
949.13	433.28
961.57	117
993.17	435.63

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 240.0, as shown in Table 2 and at **102** in FIG. 7.

TABLE 2

Y	Z
1008.69	127.06
1035.5	427.37
1055.31	127.7
1082.12	428.34
1101.92	128.52
1128.74	428.6
1148.53	129.52
1175.36	428.16
1195.14	130.67
1221.97	427.01
1241.75	131.9
1268.56	425.16
1288.36	133.13
1315.11	422.62
1334.97	134.31
1361.62	419.4
1381.58	135.49
1408.08	415.51
1428.18	136.76
1454.48	410.96
1474.78	138.17
1500.81	405.74
1521.38	139.78
1547.07	399.92
1567.97	141.55
1593.25	393.54
1614.55	143.52
1639.37	386.67
1661.12	145.73
1685.42	379.37
1707.68	148.24
1731.41	371.73
1754.21	151.1
1777.36	363.82
1800.72	154.39
1823.26	355.65
1847.19	158.14
1869.11	347.17
1893.62	162.36
1914.91	338.47
1940.02	166.93
1960.69	329.65
1986.38	171.86
2006.45	320.69

7

TABLE 2-continued

Y	Z
2032.7	177.22
2052.16	311.53
2078.96	181.86
2097.84	302.18
2125.33	176.99
2143.44	292.47
2171.7	172.12
2188.87	281.99
2218.07	167.24
2229.98	271.22
2264.44	162.37
2274.71	258.07
2310.8	157.5
2319.28	244.41
2348.36	224.64
2357.32	155.36
2394.98	224.64
2403.94	155.36
2441.61	224.64
2450.53	155.55
2487.43	232.42
2494.11	172.14
2533.33	240.64
2537.23	189.87
2579.49	209.55
2579.59	246.32
2617.72	235.62
375.12	256.43
375.38	211.58
3785.74	578.95
3812.53	591.49
3818.72	563.38
3844.17	595.82
3850.44	560.38
3875.93	599.02
3882.31	559.49
3907.76	601.6
3914.19	559.73
3939.6	603.87
3946.06	560.73
3971.45	606.08
3977.89	562.42
4003.3	608.33
4009.7	564.57
4035.15	610.63
4041.47	567.25
404.71	291.98
4066.99	612.96
4073.18	570.54
408.89	180.02
4098.83	615.3
4104.84	574.31
4130.68	617.66
4136.45	578.44
4162.52	620.02
4168.02	582.89
4194.36	622.41
4199.55	587.61
4226.19	624.81
4231.05	592.57
4258.03	627.25
4262.51	597.73
4289.86	629.73
4293.95	603.02
4321.69	632.26
4325.36	608.45
4353.51	634.85
4356.76	614.01
4385.33	637.5
4388.13	619.68
4417.14	640.23
4419.48	625.46
443.64	317.5
4448.95	643.04
4450.83	631.3
4480.74	645.95
4482.16	637.19
4512.52	649

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TABLE 2-continued

Y	Z
4513.49	643.11
451.81	162.04
4544.29	652.24
4544.81	649.04
4576.04	655.48
485.93	337.08
497.07	150.97
529.74	353.01
543.1	143.56
574.36	366.5
589.41	138.24
619.51	378.1
635.87	134.33
665.05	388.12
682.41	131.46
710.86	396.76
728.98	129.39
756.89	404.15
775.58	127.96
803.09	410.42
822.2	127.05
849.42	415.64
868.82	126.58
895.85	419.88
915.44	126.47
942.36	423.21
962.07	126.64
988.91	425.68

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of **360.0**, as shown in Table 3 and at **104** in FIG. 8.

TABLE 3

Y	Z
1086.84	190.93
1102.24	349.39
1198.8	193.2
1214.21	348.27
1310.75	195.91
1326.09	343.42
1422.7	198.87
1437.77	335.26
1534.62	202.55
1549.19	324.11
1646.51	207.09
1660.41	311.04
1758.38	212.21
1771.53	297.17
1870.25	217.19
1882.71	283.67
1898.79	281.75
1914.87	279.8
1930.94	277.82
1947.01	275.81
1963.08	273.77
1979.14	271.69
1982.18	220.41
1994.25	220.57
1995.2	269.58
2006.3	220.73
2011.25	267.45
2018.35	220.89
2027.3	265.29
2030.4	221.06
2042.44	221.23
2043.35	263.11
2054.49	221.41
2059.39	260.89
2066.54	221.59
2075.43	258.65
2078.58	221.78
2090.63	221.97
2091.46	256.38

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TABLE 3-continued

Y	Z
2102.68	222.16
2107.49	254.08
2114.72	222.36
2123.52	251.74
2126.77	222.57
2138.82	222.79
2139.54	249.35
2150.86	223.01
2155.55	246.93
2162.91	223.25
2171.56	244.47
2174.96	223.49
2187	223.73
2187.56	241.96
2199.05	223.96
2203.55	239.41
2211.1	224.17
2219.53	236.81
2223.14	224.35
2235.19	224.53
2235.51	234.15
2247.24	224.76
2251.48	231.44
2259.28	225
2267.43	228.68
2271.33	225.19
2283.38	225.34
3048.66	358.95
3081.81	392.98
3107.69	361.82
3136.06	416.99
3166.11	372.19
3191.42	438.32
3224.07	384.89
3247.35	458.1
3281.7	399.03
3303.68	476.74
3339.04	414.27
3360.32	494.4
3396.12	430.48
3417.24	511.15
3452.93	447.6
3474.42	526.97
3509.45	465.66
3531.88	541.76
3565.62	484.79
3589.64	555.29
3621.32	505.25
3647.8	567.02
3676.23	527.69
3706.54	575.16
3728.99	554.71
3826.84	489.85
3832.12	496.49
3840.92	499.08
3847.1	535.94
3847.74	526.8
3848.05	545.04
3849.86	517.9
3849.91	500.87
3850.83	553.76
3853.66	509.57
3855.48	561.64
3857.12	475.49
3858.96	502.36
3861.71	568.34
3869.1	573.75
3877.22	577.98
3885.81	581.18
3886.67	472.77
3894.67	583.54
3903.68	585.18
3912.79	586.24
3916.34	472.11
3921.94	586.79
3931.11	586.9
3940.27	586.64
3946.02	472.46

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TABLE 3-continued

Y	Z
3949.42	586.05
3958.54	585.16
3967.64	584
3975.68	473.52
3976.7	582.6
3985.72	580.97
3994.7	579.14
4003.64	577.12
4005.32	475.08
4012.54	574.92
4017.44	517.03
4021.4	572.55
4023.21	516.81
4025.68	521.05
4030.21	570.02
4032.35	517.48
4033.84	525.22
4034.93	477.15
4038.98	567.34
4041.49	518.14
4041.93	529.53
4045.14	562.47
4046.03	553.34
4046.92	544.22
4047.81	535.09
4050.64	518.81
4059.78	519.47
4064.51	479.52
4068.92	520.14
4078.07	520.8
4087.21	521.46
4094.05	482.41
4096.36	522.12
4105.5	522.79
4114.64	523.46
4123.54	485.79
4123.79	524.12
4132.93	524.79
4142.07	525.47
4151.22	526.14
4152.98	489.55
4160.36	526.82
4169.5	527.51
4178.64	528.19
4182.39	493.62
4187.79	528.87
4196.93	529.56
4206.07	530.25
4211.75	497.96
4215.21	530.94
4224.35	531.63
4233.49	532.32
4241.07	502.55
4242.64	533.02
4251.78	533.71
4260.92	534.41
4270.06	535.12
4270.36	507.33
4279.2	535.83
4288.34	536.54
4297.48	537.26
4299.63	512.26
4306.62	537.98
4315.76	538.71
4324.9	539.45
4328.88	517.33
4334.03	540.19
4343.17	540.93
4352.31	541.68
4358.11	522.51
4361.44	542.44
4370.58	543.2
4379.72	543.97
4387.31	527.8
4388.85	544.75
4397.99	545.53
4407.12	546.32
4416.25	547.11

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TABLE 3-continued

Y	Z
4416.5	533.19
4425.39	547.92
4434.52	548.73
4443.65	549.55
4445.68	538.63
4452.78	550.38
4461.91	551.21
4471.04	552.06
4474.85	544.1
4480.17	552.91
4489.29	553.77
4498.42	554.65
4504.02	549.59
4507.54	555.54
4516.66	556.5
4525.78	557.42
4533.18	555.15
4534.9	558.35
4544.02	559.3
4553.13	560.29
4562.25	561.12
559.57	250.22
639.33	201.09
658.26	300.04
750.95	192.4
767.61	323.9
862.89	189.6
878.62	338.46
974.87	189.52
990.3	346.44

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 480.0, as shown in Table 4 and at **106** in FIG. 9.

TABLE 4

Y	Z
1077.08	199.89
1082.96	322.95
1206.22	199.56
1212.07	325.39
1335.36	200.25
1341.18	322.85
1464.49	201.92
1470.13	315.91
1593.6	204.67
1598.83	305.33
1722.69	208.38
1727.32	292.36
1851.78	211.95
1855.65	277.99
1980.88	214.94
1983.77	261.74
2109.98	218.44
2111.6	243.44
2239.06	222.4
3867.94	400.76
3871.64	405.98
3878.13	408.22
3884.81	409.8
3891.56	411.11
3895.51	387.56
3898.33	412.24
3905.13	413.23
3911.94	414.1
3918.76	414.91
3922.87	385
3925.59	415.68
3932.42	416.38
3939.25	417.04
3946.09	417.66
3950.34	384.38
3952.94	418.25
3959.78	418.83

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TABLE 4-continued

Y	Z
3966.63	419.39
3973.47	419.94
3977.82	384.81
3980.32	420.49
3987.17	421.03
3994.01	421.57
4000.86	422.1
4005.28	385.91
4007.71	422.62
4014.56	423.15
4021.41	423.67
4028.25	424.19
4032.72	387.49
4035.1	424.71
4041.95	425.22
4048.8	425.72
4055.65	426.22
4060.13	389.44
4062.5	426.72
4069.35	427.21
4076.2	427.7
4083.05	428.19
4087.52	391.73
4089.91	428.68
4096.76	429.17
4103.61	429.66
4110.46	430.15
4114.89	394.28
4117.31	430.64
4124.16	431.14
4131.01	431.63
4137.86	432.13
4142.21	397.27
4144.71	432.63
4151.56	433.14
4158.41	433.64
4165.26	434.15
4169.48	400.66
4172.11	434.66
4178.96	435.17
4185.81	435.69
4192.65	436.2
4196.72	404.35
4199.5	436.71
4206.35	437.23
4213.2	437.74
4220.05	438.26
4223.91	408.31
4226.9	438.78
4233.75	439.29
4240.6	439.81
4247.44	440.33
4251.07	412.53
4254.29	440.85
4261.14	441.38
4267.99	441.9
4274.84	442.43
4278.2	416.94
4281.69	442.96
4288.53	443.49
4295.38	444.03
4302.23	444.57
4305.3	421.5
4309.07	445.11
4315.92	445.66
4322.77	446.2
4329.61	446.76
4332.38	426.19
4336.46	447.31
4343.3	447.87
4350.15	448.43
4356.99	449
4359.44	431
4363.84	449.57
4370.68	450.14
4377.53	450.72
4384.37	451.3
4386.48	435.92

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TABLE 4-continued

Y	Z
4391.21	451.89
4398.06	452.48
4404.9	453.07
4411.74	453.67
4413.51	440.91
4418.58	454.27
4425.43	454.87
4432.27	455.48
4439.11	456.1
4440.53	445.93
4445.95	456.73
4452.79	457.36
4459.62	457.99
4466.46	458.63
4467.54	450.99
4473.3	459.27
4480.14	459.92
4486.98	460.57
4493.81	461.23
4494.55	456.08
4500.65	461.9
4507.48	462.63
4514.31	463.31
4521.14	464.01
4521.54	461.25
4527.98	464.71
4534.81	465.43
4541.64	466.17
4548.47	466.77
690.16	215.29
699.61	273.01
818.87	205.28
825.87	299.61
947.95	201.53
954.09	314.78

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 600.0, as shown in Table 5 and at **108** in FIG. 10.

TABLE 5

Y	Z
1002.53	196.57
1008.08	303
1124.05	195.41
1129.33	310.96
1245.58	195.46
1250.83	313.53
1367.11	196.43
1372.33	311.41
1488.62	198.3
1493.7	305.16
1610.12	201.16
1614.84	295.48
1731.59	204.88
1735.78	283.56
1853.07	208.45
1856.59	270.31
1974.56	211.45
1977.18	255.29
2096.04	214.92
2097.53	238.35
2217.51	218.79
3909.04	311.66
3912.74	316.21
3918.68	318.32
3924.8	319.87
3930.99	321.12
3933.9	299.62
3937.21	322.15
3943.46	323.04
3949.72	323.86
3955.99	324.61
3959.06	297.15

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TABLE 5-continued

Y	Z
3962.26	325.29
3968.54	325.93
3974.83	326.54
3981.11	327.12
3984.33	296.48
3987.4	327.69
3993.69	328.25
3999.97	328.8
4006.26	329.34
4009.62	296.89
4012.55	329.86
4018.84	330.38
4025.13	330.89
4031.43	331.39
4034.88	297.89
4037.72	331.89
4044.01	332.38
4050.31	332.86
4056.6	333.33
4060.12	299.45
4062.89	333.8
4069.19	334.25
4075.49	334.7
4081.78	335.15
4085.34	301.39
4088.08	335.59
4094.37	336.04
4100.67	336.48
4106.97	336.92
4110.53	303.61
4113.26	337.36
4119.56	337.81
4125.86	338.25
4132.15	338.7
4135.7	306.06
4138.45	339.16
4144.74	339.61
4151.04	340.07
4157.33	340.53
4160.84	308.72
4163.63	341
4169.92	341.46
4176.22	341.93
4182.51	342.4
4185.95	311.75
4188.81	342.87
4195.1	343.34
4201.4	343.82
4207.69	344.29
4211.02	315.08
4213.98	344.76
4220.28	345.23
4226.57	345.71
4232.87	346.18
4236.05	318.67
4239.16	346.66
4245.46	347.13
4251.75	347.61
4258.04	348.09
4261.04	322.5
4264.34	348.57
4270.63	349.05
4276.92	349.53
4283.22	350.02
4286.01	326.54
4289.51	350.51
4295.8	351
4302.1	351.49
4308.39	351.99
4310.95	330.73
4314.68	352.49
4320.97	352.99
4327.26	353.49
4333.56	354
4335.86	335.06
4339.85	354.51
4346.14	355.02
4352.43	355.54

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TABLE 5-continued

Y	Z
4358.72	356.06
4360.76	339.5
4365.01	356.59
4371.3	357.12
4377.59	357.65
4383.88	358.18
4385.64	344.03
4390.17	358.72
4396.46	359.26
4402.74	359.81
4409.03	360.36
4410.51	348.61
4415.32	360.92
4421.61	361.48
4427.89	362.04
4434.18	362.6
4435.37	353.22
4440.47	363.18
4446.75	363.76
4453.04	364.35
4459.32	364.95
4460.22	357.88
4465.6	365.54
4471.89	366.14
4478.17	366.74
4484.45	367.34
4485.07	362.58
4490.73	367.96
4497.02	368.59
4503.29	369.25
4509.57	369.89
4509.91	367.32
4515.85	370.54
4522.13	371.19
4528.4	371.88
4534.68	372.41
759.89	208.82
768.68	263.12
881.04	199.75
887.44	288.44

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 720.0, as shown in Table 6 and at **110** in FIG. 11.

TABLE 6

Y	Z
1057.5	189.57
1062.37	288.34
1173.27	190.72
1177.84	296.68
1289.03	192.65
1293.56	299.84
1404.79	194.98
1409.32	298.43
1520.53	197.72
1524.98	293.14
1636.26	200.95
1640.44	284.67
1751.98	204.55
1755.73	274.07
1867.72	207.66
1870.89	262.15
1983.47	209.9
1985.86	248.54
2099.23	212.16
2100.61	233.12
2214.98	214.62
3950.14	222.57
3953.72	226.6
3959.07	228.71
3964.63	230.2
3970.28	231.29
3972.28	211.68

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TABLE 6-continued

Y	Z
3975.97	232.22
3981.66	233.04
3987.38	233.76
3993.09	234.43
3995.23	209.25
3998.82	235.05
4004.54	235.65
4010.27	236.23
4016	236.8
4018.31	208.5
4021.73	237.35
4027.46	237.88
4033.2	238.38
4038.93	238.88
4041.41	208.72
4044.67	239.37
4050.41	239.84
4056.14	240.31
4061.88	240.75
4064.48	209.63
4067.63	241.19
4073.37	241.61
4079.11	242.02
4084.85	242.43
4087.54	210.97
4090.59	242.83
4096.34	243.22
4102.08	243.62
4107.82	244.01
4110.56	212.81
4113.57	244.41
4119.31	244.8
4125.05	245.2
4130.8	245.61
4133.55	214.98
4136.54	246.01
4142.28	246.42
4148.03	246.83
4153.77	247.24
4156.52	217.39
4159.51	247.66
4165.25	248.08
4170.99	248.51
4176.73	248.93
4179.47	219.98
4182.47	249.36
4188.22	249.79
4193.96	250.22
4199.7	250.65
4202.4	222.74
4205.44	251.08
4211.18	251.51
4216.92	251.94
4222.66	252.37
4225.3	225.75
4228.4	252.8
4234.14	253.23
4239.88	253.67
4245.62	254.1
4248.16	229.01
4251.36	254.53
4257.1	254.97
4262.84	255.4
4268.59	255.84
4270.99	232.47
4274.33	256.28
4280.07	256.72
4285.81	257.16
4291.55	257.61
4293.8	236.14
4297.29	258.05
4303.02	258.5
4308.76	258.95
4314.5	259.4
4316.57	239.96
4320.24	259.86
4325.98	260.31
4331.72	260.77

TABLE 6-continued

Y	Z
4337.46	261.24
4339.32	243.92
4343.2	261.7
4348.93	262.17
4354.67	262.64
4360.41	263.12
4362.06	247.98
4366.15	263.6
4371.88	264.08
4377.62	264.56
4383.36	265.05
4384.78	252.11
4389.09	265.54
4394.83	266.04
4400.56	266.54
4406.3	267.04
4407.5	256.29
4412.03	267.55
4417.77	268.06
4423.5	268.57
4429.23	269.09
4430.2	260.5
4434.97	269.61
4440.7	270.14
4446.43	270.67
4452.16	271.22
4452.9	264.77
4457.89	271.77
4463.62	272.33
4469.35	272.89
4475.08	273.45
4475.59	269.09
4480.81	274.01
4486.54	274.58
4492.27	275.16
4497.99	275.77
4498.28	273.39
4503.72	276.36
4509.45	276.96
4515.17	277.58
4520.9	278.06
826.19	197.36
834.61	248.63
941.73	190.57
947.55	273.66

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 840.0, as shown in Table 7 and at **112** in FIG. **12**.

TABLE 7

Y	Z
1002.27	180.87
1007.37	258.37
1112.55	182.29
1116.63	273.28
1222.79	186.01
1226.56	282.08
1333.01	190.03
1336.78	285.9
1443.24	193.86
1447.07	285.24
1553.47	197.56
1557.28	280.96
1663.71	201.2
1667.34	273.74
1773.95	204.66
1777.24	264.5
1884.22	207.25
1887.03	253.94
1994.5	208.61
1996.65	241.75
2104.8	209.51
2106.07	227.88

TABLE 7-continued

Y	Z
2215.09	210.38
4086.08	149.58
4090.29	149.87
4094.5	150.16
4098.71	150.45
4102.93	150.74
4107.14	151.02
4111.35	151.3
4115.57	151.59
4119.78	151.87
4123.99	152.15
4128.21	152.44
4132.42	152.73
4136.63	153.02
4140.84	153.31
4141.74	124.32
4145.06	153.61
4149.27	153.9
4153.48	154.2
4157.1	125.8
4157.69	154.5
4161.91	154.81
4166.12	155.12
4170.33	155.42
4172.44	127.46
4174.54	155.73
4178.75	156.05
4182.96	156.36
4187.17	156.67
4187.76	129.27
4191.38	156.99
4195.59	157.3
4199.81	157.62
4203.07	131.18
4204.02	157.93
4208.23	158.25
4212.44	158.57
4216.65	158.88
4218.37	133.2
4220.86	159.2
4225.07	159.51
4229.28	159.83
4233.49	160.14
4233.66	135.3
4237.7	160.46
4241.91	160.78
4246.13	161.09
4248.93	137.5
4250.34	161.41
4254.55	161.73
4258.76	162.05
4262.97	162.36
4264.19	139.78
4267.18	162.68
4271.39	163
4275.6	163.33
4279.44	142.15
4279.81	163.65
4284.02	163.97
4288.23	164.29
4292.44	164.62
4294.67	144.59
4296.65	164.94
4300.86	165.27
4305.07	165.6
4309.28	165.92
4309.9	147.11
4313.49	166.25
4317.7	166.59
4321.91	166.92
4325.11	149.69
4326.12	167.25
4330.33	167.59
4334.54	167.92
4338.75	168.26
4340.31	152.34
4342.96	168.6
4347.17	168.94



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TABLE 7-continued

Y	Z
4351.38	169.29
4355.5	155.03
4355.58	169.63
4359.79	169.98
4364	170.33
4368.21	170.68
4370.69	157.76
4372.42	171.03
4376.62	171.39
4380.83	171.74
4385.04	172.1
4385.87	160.52
4389.25	172.46
4393.45	172.83
4397.66	173.19
4401.05	163.31
4401.87	173.56
4406.07	173.93
4410.28	174.3
4414.49	174.67
4416.22	166.13
4418.69	175.05
4422.9	175.43
4427.1	175.81
4431.31	176.19
4431.38	168.99
4435.51	176.58
4439.72	176.97
4443.92	177.36
4446.54	171.87
4448.13	177.76
4452.33	178.16
4456.53	178.58
4460.73	179
4461.7	174.74
4464.94	179.43
4469.14	179.85
4473.34	180.27
4476.87	177.58
4477.54	180.69
4481.74	181.12
4485.94	181.55
4490.14	182
4492.02	180.51
4494.34	182.45
4498.54	182.9
4502.74	183.35
4507.11	183.71
892.09	185.17
900.01	233.46

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 960.0, as shown in Table 8 and at **114** in FIG. 13.

TABLE 8

Y	Z
1010.85	170.95
1015.43	232.32
1037.07	170.84
1041.03	237.97
1063.28	171.16
1066.76	242.99
1089.49	171.72
1092.59	247.47
1115.69	172.6
1118.5	251.45
1141.88	173.69
1144.47	255
1168.07	175
1170.49	258.18
1194.24	176.48
1196.56	260.99
1220.41	178.07

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TABLE 8-continued

Y	Z
1222.65	263.47
1246.57	179.69
1248.78	265.62
1272.74	181.3
1274.93	267.46
1298.91	182.89
1301.1	269.01
1325.07	184.45
1327.29	270.28
1351.25	185.95
1353.48	271.26
1377.42	187.41
1379.69	271.96
1403.6	188.82
1405.9	272.37
1429.78	190.18
1432.11	272.52
1455.96	191.49
1458.33	272.39
1482.15	192.76
1484.54	272.06
1508.33	193.98
1510.75	271.53
1534.52	195.17
1536.96	270.8
1560.71	196.31
1563.16	269.88
1586.9	197.42
1589.35	268.79
1613.1	198.49
1615.53	267.53
1639.29	199.52
1641.71	266.1
1665.49	200.51
1667.88	264.52
1691.69	201.47
1694.04	262.83
1717.88	202.39
1720.19	261.02
1744.09	203.25
1746.34	259.09
1770.29	204.06
1772.47	257.09
1796.49	204.79
1798.6	254.96
1822.7	205.45
1824.72	252.75
1848.91	206.02
1850.84	250.49
1875.12	206.49
1876.95	248.17
1901.33	206.84
1903.06	245.75
1927.55	207.08
1929.15	243.22
1953.76	207.25
1955.23	240.58
1979.98	207.32
1981.3	237.83
2006.19	207.32
2007.37	234.99
2032.41	207.26
2033.42	232.08
2058.62	207.16
2059.46	229.08
2084.84	207.03
2085.49	225.95
2111.05	206.87
2111.5	222.65
2137.27	206.75
2137.48	219.15
2163.42	215.4
2163.48	206.59
2189.32	211.37
2189.7	206.37
2215.18	206.84
919.81	192.98
932.43	175.87

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TABLE 8-continued

Y	Z
940.67	208.36
958.47	172.92
964.97	218.14
984.65	171.58
990.03	225.84

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 1080.0, as shown in Table 9 and at **116** in FIG. 14.

TABLE 9

Y	Z
1007.07	193.254
1024.74	160.681
1030	202.825
1049.59	160.026
1053.66	210.444
1074.45	160.037
1077.66	216.894
1099.3	160.529
1101.86	222.568
1124.14	161.422
1126.2	227.615
1148.97	162.56
1150.64	232.134
1173.78	164.04
1175.17	236.176
1198.58	165.756
1199.76	239.807
1223.36	167.706
1224.4	243.068
1248.13	169.846
1249.09	245.98
1272.88	172.092
1273.81	248.57
1297.64	174.345
1298.56	250.847
1322.4	176.564
1323.34	252.835
1347.16	178.732
1348.14	254.541
1371.93	180.831
1372.95	255.974
1396.7	182.843
1397.78	257.136
1421.49	184.772
1422.62	258.017
1446.27	186.615
1447.47	258.612
1471.07	188.371
1472.33	258.946
1495.87	190.042
1497.19	258.998
1520.68	191.634
1522.04	258.881
1545.49	193.15
1546.9	258.576
1570.3	194.593
1571.75	258.093
1595.12	195.967
1596.6	257.438
1619.95	197.267
1621.44	256.625
1644.77	198.493
1646.28	255.66
1669.6	199.644
1671.11	254.544
1694.44	200.721
1695.94	253.288
1719.27	201.725
1720.76	251.927
1744.11	202.661
1745.57	250.447
1768.96	203.491

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TABLE 9-continued

Y	Z
1770.38	248.857
1793.8	204.254
1795.18	247.221
1818.65	204.914
1819.97	245.425
1843.5	205.47
1844.76	243.559
1868.36	205.917
1869.54	241.639
1893.21	206.237
1894.32	239.656
1918.07	206.431
1919.09	237.578
1942.92	206.481
1943.85	235.391
1967.78	206.439
1968.61	233.1
1992.64	206.284
1993.35	230.715
2017.49	206.03
2018.08	228.25
2042.35	205.68
2042.81	225.723
2067.2	205.252
2067.53	223.109
2092.05	204.758
2092.24	220.362
2116.91	204.21
2116.92	217.433
2141.58	214.277
2141.76	203.697
2166.19	210.847
2166.61	203.148
2190.77	207.096
2191.46	202.511
2215.28	202.88
987.454	178.462
999.992	162.827

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 1200.0, as shown in Table 10 and at **118** in FIG. 15.

TABLE 10

Y	Z
1055.69	164.888
1066.44	149.953
1074.47	178.648
1089.88	148.453
1096.08	187.886
1113.39	148.431
1118.36	195.354
1136.88	149.063
1140.98	201.736
1160.36	150.14
1163.79	207.402
1183.82	151.587
1186.75	212.454
1207.27	153.283
1209.81	216.994
1230.68	155.35
1232.96	221.079
1254.07	157.678
1256.17	224.77
1277.44	160.254
1279.44	228.104
1300.77	163.041
1302.75	231.099
1324.1	165.941
1326.1	233.787
1347.43	168.832
1349.48	236.182
1370.76	171.658
1372.89	238.301

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TABLE 10-continued

Y	Z
1394.11	174.403
1396.33	240.151
1417.46	177.049
1419.78	241.739
1440.83	179.576
1443.24	243.065
1464.21	181.979
1466.73	244.113
1487.61	184.264
1490.22	244.879
1511.01	186.425
1513.72	245.39
1534.43	188.466
1537.22	245.615
1557.86	190.391
1560.73	245.7
1581.29	192.207
1584.23	245.615
1604.73	193.918
1607.74	245.37
1628.18	195.524
1631.24	244.972
1651.64	197.024
1654.74	244.432
1675.11	198.414
1678.23	243.757
1698.58	199.694
1701.72	242.946
1722.05	200.864
1725.21	242.009
1745.53	201.92
1748.69	240.971
1769.02	202.877
1772.17	239.82
1792.51	203.698
1795.64	238.567
1816	204.416
1819.11	237.298
1839.5	205.004
1842.57	235.827
1863	205.466
1866.03	234.303
1886.51	205.796
1889.48	232.721
1910.01	205.978
1912.93	231.07
1933.52	206.019
1936.37	229.325
1957.02	205.888
1959.8	227.479
1980.52	205.644
1983.22	225.533
2004.03	205.269
2006.64	223.507
2027.53	204.765
2030.05	221.415
2051.02	204.131
2053.46	219.27
2074.52	203.382
2076.86	217.036
2098.01	202.533
2100.24	214.659
2121.49	201.609
2123.61	212.082
2144.98	200.693
2146.94	209.254
2168.47	199.755
2170.24	206.119
2191.95	198.708
2193.48	202.624
2215.43	197.646

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TABLE 11

Y	Z
1092.2	160.051
1104.7	146.699
1109.84	173.963
1127.42	145.568
1130.65	183.156
1150.18	145.768
1152.16	190.576
1172.92	146.578
1174.01	196.918
1195.64	147.815
1196.06	202.558
1218.25	207.59
1218.35	149.397
1240.55	212.119
1241.03	151.22
1262.94	216.204
1263.68	153.42
1285.4	219.901
1286.31	155.859
1307.91	223.249
1308.91	158.548
1330.46	226.267
1331.48	161.438
1353.06	228.985
1354.04	164.43
1375.69	231.418
1376.6	167.403
1398.34	233.583
1399.18	170.305
1421.02	235.487
1421.76	173.124
1443.72	237.134
1444.35	175.841
1466.43	238.528
1466.96	178.436
1489.16	239.653
1489.59	180.909
1511.9	240.498
1512.22	183.257
1534.65	241.094
1534.87	185.484
1557.41	241.405
1557.53	187.587
1580.17	241.583
1580.2	189.574
1602.88	191.449
1602.92	241.598
1625.57	193.217
1625.68	241.461
1648.27	194.879
1648.44	241.173
1670.97	196.431
1671.19	240.753
1693.69	197.873
1693.94	240.204
1716.41	199.202
1716.69	239.525
1739.13	200.417
1739.43	238.723
1761.86	201.52
1762.18	237.825
1784.6	202.519
1784.91	236.814
1807.34	203.371
1807.64	235.704
1830.09	204.131
1830.37	234.578
1852.83	204.757
1853.09	233.264
1875.59	205.253
1875.81	231.887
1898.34	205.612
1898.52	230.454
1921.1	205.819
1921.23	228.951
1943.86	205.879
1943.93	227.36
1966.61	205.773

The upper and lower surfaces 28, 30 are defined at Y and Z positions corresponding substantially to the X position of 1320.0, as shown in Table 11 and at 120 in FIG. 16.

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TABLE 11-continued

Y	Z
1966.63	225.669
1989.31	223.883
1989.37	205.55
2011.99	222.018
2012.13	205.188
2034.67	220.091
2034.88	204.694
2057.34	218.115
2057.63	204.064
2080.01	216.057
2080.37	203.316
2102.66	213.858
2103.12	202.459
2125.29	211.465
2125.85	201.519
2147.89	208.819
2148.59	200.595
2170.46	205.866
2171.33	199.622
2192.97	202.551
2194.06	198.536
2215.42	198.82

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 1440.0, as shown in Table 12 and at **122** in FIG. 17.

TABLE 12

Y	Z
1119.7	159.834
1131.87	146.79
1136.9	173.426
1154.03	145.702
1157.18	182.434
1176.23	145.915
1178.15	189.715
1198.42	146.723
1199.46	195.946
1220.59	147.945
1220.95	201.493
1242.59	206.448
1242.74	149.502
1264.34	210.912
1264.87	151.292
1286.18	214.943
1286.96	153.439
1308.08	218.596
1309.04	155.818
1330.03	221.908
1331.08	158.433
1352.03	224.898
1353.11	161.24
1374.07	227.597
1375.12	164.14
1396.14	230.017
1397.14	167.024
1418.23	232.175
1419.16	169.842
1440.35	234.079
1441.19	172.583
1462.49	235.734
1463.23	175.229
1484.65	237.141
1485.29	177.763
1506.82	238.284
1507.36	180.183
1529.01	239.155
1529.44	182.489
1551.2	239.783
1551.54	184.681
1573.4	240.135
1573.64	186.759
1595.6	240.356
1595.76	188.729

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TABLE 12-continued

Y	Z
1617.81	240.417
1617.88	190.596
1640.01	240.33
1640.01	192.364
1662.15	194.033
1662.21	240.099
1684.3	195.601
1684.41	239.734
1706.45	197.068
1706.61	239.245
1728.61	198.428
1728.8	238.63
1750.78	199.685
1750.99	237.894
1772.95	200.838
1773.18	237.065
1795.13	201.892
1795.36	236.126
1817.31	202.814
1817.54	235.09
1839.5	203.646
1839.71	234.039
1861.69	204.355
1861.88	232.804
1883.89	204.938
1884.05	231.508
1906.08	205.384
1906.21	230.157
1928.28	205.68
1928.36	228.738
1950.49	205.832
1950.52	227.233
1972.66	225.63
1972.69	205.825
1994.8	223.935
1994.89	205.701
2016.93	222.163
2017.09	205.443
2039.06	220.329
2039.29	205.056
2061.18	218.449
2061.49	204.535
2083.29	216.487
2083.68	203.895
2105.4	214.39
2105.87	203.151
2127.48	212.101
2128.06	202.324
2149.54	209.567
2150.24	201.502
2171.56	206.733
2172.43	200.616
2193.53	203.546
2194.61	199.621
2215.44	199.952

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 1560.0, as shown in Table 13 and at **124** in FIG. 18.

TABLE 13

Y	Z
1147.19	159.615
1159.03	146.881
1163.95	172.889
1180.64	145.837
1183.7	181.711
1202.29	146.063
1204.14	188.854
1223.92	146.868
1224.9	194.974
1245.53	148.076
1245.85	200.428
1266.94	205.305

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TABLE 13-continued

Y	Z
1267.13	149.607
1288.13	209.704
1288.7	151.364
1309.41	213.681
1310.25	153.458
1330.75	217.29
1331.77	155.776
1352.15	220.568
1353.27	158.318
1373.59	223.53
1374.74	161.042
1395.07	226.209
1396.2	163.852
1416.59	228.616
1417.67	166.645
1438.12	230.769
1439.14	169.379
1459.69	232.672
1460.63	172.043
1481.27	234.333
1482.12	174.618
1502.87	235.753
1503.62	177.09
1524.49	236.916
1525.14	179.457
1546.11	237.813
1546.67	181.721
1567.75	238.473
1568.21	183.877
1589.39	238.864
1589.76	185.931
1611.04	239.128
1611.32	187.884
1632.69	239.237
1632.88	189.744
1654.33	239.199
1654.46	191.512
1675.98	239.022
1676.04	193.188
1697.62	238.716
1697.63	194.772
1719.22	196.262
1719.27	238.287
1740.83	197.655
1740.91	237.735
1762.43	198.952
1762.54	237.068
1784.05	200.154
1784.18	236.306
1805.67	201.265
1805.81	235.439
1827.29	202.254
1827.43	234.477
1848.92	203.161
1849.06	233.5
1870.55	203.953
1870.67	232.345
1892.19	204.622
1892.29	231.129
1913.83	205.157
1913.89	229.86
1935.47	205.541
1935.5	228.524
1957.1	227.105
1957.12	205.788
1978.69	225.591
1978.76	205.873
2000.28	223.987
2000.41	205.851
2021.86	222.307
2022.06	205.699
2043.44	220.567
2043.7	205.417
2065.01	218.782
2065.34	205.005
2086.58	216.918
2086.99	204.476
2108.13	214.921

28

TABLE 13-continued

Y	Z
2108.62	203.844
2129.67	212.738
2130.26	203.127
2151.18	210.315
2151.89	202.406
2172.66	207.6
2173.53	201.612
2194.09	204.54
2195.15	200.705
2215.46	201.085

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 1680.0, as shown in Table 14 and at **126** in FIG. 19.

TABLE 14

Y	Z
1174.69	159.39
1186.2	146.97
1191	172.35
1207.26	145.97
1210.23	180.99
1228.35	146.21
1230.12	187.99
1249.42	147.01
1250.34	194
1270.48	148.21
1270.74	199.36
1291.27	204.16
1291.52	149.71
1311.92	208.5
1312.54	151.44
1332.64	212.42
1333.53	153.48
1353.43	215.98
1354.5	155.73
1374.27	219.23
1375.45	158.2
1395.15	222.16
1396.38	160.85
1416.08	224.82
1417.29	163.56
1437.03	227.21
1438.21	166.27
1458.01	229.36
1459.13	168.92
1479.02	231.27
1480.07	171.5
1500.05	232.93
1501.01	174.01
1521.09	234.37
1521.96	176.42
1542.15	235.55
1542.93	178.73
1563.22	236.47
1563.9	180.95
1584.3	237.16
1584.88	183.08
1605.39	237.59
1605.88	185.1
1626.47	237.9
1626.88	187.04
1647.57	238.06
1647.89	188.89
1668.66	238.07
1668.91	190.66
1689.75	237.94
1689.93	192.34
1710.84	237.7
1710.96	193.94
1731.93	237.33
1732	195.46
1753.01	236.84
1753.04	196.88

TABLE 14-continued

TABLE 15-continued

Y	Z		Y	Z
1774.09	198.22		1438.38	163.277
1774.1	236.24	5	1457.48	225.814
1795.15	199.47		1458.75	165.891
1795.18	235.55		1477.9	227.954
1816.21	200.64		1479.13	168.456
1816.25	234.75		1498.35	229.859
1837.27	201.69		1499.51	170.962
1837.33	233.86	10	1518.82	231.532
1858.34	202.68		1519.9	173.396
1858.4	232.96		1539.3	232.978
1879.42	203.55		1540.3	175.746
1879.46	231.89		1559.81	234.179
1900.49	204.31		1560.71	178.008
1900.52	230.75	15	1580.32	235.13
1921.58	204.93		1581.14	180.186
1921.58	229.56		1600.84	235.855
1942.64	228.31		1601.57	182.273
1942.66	205.4		1621.37	236.324
1963.69	226.98		1622	184.276
1963.75	205.74		1641.91	236.674
1984.73	225.55	20	1642.45	186.196
1984.84	205.93		1662.44	236.875
2005.77	224.04		1662.9	188.039
2005.93	206		1682.98	236.939
2026.8	222.45		1683.36	189.805
2027.02	205.96		1703.52	236.868
2047.83	220.81	25	1703.83	191.497
2048.12	205.78		1724.05	236.677
2068.85	219.12		1724.3	193.112
2069.2	205.47		1744.59	236.37
2089.87	217.35		1744.78	194.65
2090.29	205.06		1765.12	235.946
2110.87	215.45	30	1765.27	196.107
2111.38	204.54		1785.65	235.411
2131.86	213.37		1785.76	197.485
2132.46	203.93		1806.18	234.787
2152.83	211.06		1806.25	198.783
2153.54	203.31		1826.7	234.064
2173.76	208.47	35	1826.75	200.009
2174.62	202.61		1847.22	233.251
2194.64	205.54		1847.26	201.131
2195.7	201.79		1867.74	232.424
2215.47	202.22		1867.77	202.191
			1888.25	231.426
			1888.28	203.147
			1908.76	230.371
			1908.8	203.989
			1929.27	229.267
			1929.33	204.7
			1949.77	228.098
			1949.86	205.263
			1970.27	226.851
			1970.39	205.692
			1990.76	225.513
			1990.92	205.983
			2011.25	224.09
			2011.46	206.152
			2031.73	222.595
			2031.99	206.21
			2052.21	221.044
			2052.53	206.14
			2072.68	219.449
			2073.07	205.946
			2093.15	217.78
			2093.6	205.636
			2113.61	215.984
			2114.13	205.228
			2134.05	214.012
			2134.66	204.737
			2154.47	211.812
			2155.19	204.217
			2174.86	209.334
			2175.72	203.601
			2195.2	206.53
			2196.24	202.872
			2215.49	203.349

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 1800.0, as shown in Table 15 and at **128** in FIG. 20.

TABLE 15

Y	Z	
1202.19	159.171	
1213.37	147.061	
1218.05	171.812	
1233.88	146.105	
1236.76	180.264	50
1254.41	146.356	
1256.11	187.131	
1274.93	147.158	
1275.78	193.029	
1295.43	148.337	
1295.63	198.298	55
1315.61	203.02	
1315.92	149.816	
1335.7	207.289	
1336.38	151.508	
1355.87	211.158	
1356.82	153.499	60
1376.1	214.679	
1377.24	155.694	
1396.38	217.885	
1397.64	158.091	
1416.71	220.793	
1418.01	160.648	65
1437.08	223.432	

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The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 1920.0, as shown in Table 16 and at **130** in FIG. 21.

Y	Z
1229.68	158.946
1240.54	147.15
1245.1	171.272
1260.5	146.238
1263.28	179.54
1280.47	146.503
1282.09	186.268
1300.44	147.304
1301.21	192.056
1320.39	148.467
1320.51	197.232
1339.95	201.876
1340.32	149.922
1359.48	206.081
1360.23	151.581
1379.1	209.896
1380.12	153.519
1398.77	213.373
1399.98	155.653
1418.5	216.544
1419.83	157.978
1438.27	219.424
1439.66	160.452
1458.08	222.044
1459.48	162.989
1477.92	224.413
1479.3	165.515
1497.79	226.547
1499.12	167.995
1517.68	228.452
1518.96	170.423
1537.59	230.133
1538.8	172.786
1557.52	231.59
1558.65	175.074
1577.46	232.812
1578.51	177.284
1597.42	233.788
1598.38	179.417
1617.39	234.546
1618.25	181.472
1637.36	235.054
1638.14	183.449
1657.34	235.446
1658.03	185.353
1677.32	235.695
1677.92	187.187
1697.3	235.808
1697.83	188.953
1717.28	235.793
1717.74	190.653
1737.26	235.659
1737.65	192.283
1757.25	235.412
1757.57	193.844
1777.22	235.051
1777.5	195.334
1797.2	234.584
1797.43	196.752
1817.17	234.029
1817.36	198.1
1837.14	233.377
1837.31	199.376
1857.11	232.638
1857.25	200.574
1877.08	231.885
1877.2	201.705
1897.04	230.966
1897.16	202.743
1917	229.992
1917.12	203.673
1936.95	228.97
1937.08	204.471

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TABLE 16-continued

	Y	Z
5	1956.91	227.885
	1957.05	205.124
	1976.85	226.724
	1977.03	205.646
	1996.8	225.474
	1997	206.029
	2016.73	224.142
10	2016.98	206.305
	2036.67	222.739
	2036.97	206.465
	2056.59	221.283
	2056.95	206.501
	2076.52	219.783
	2076.93	206.414
15	2096.44	218.211
	2096.91	206.216
	2116.35	216.516
	2116.89	205.92
	2136.24	214.649
	2136.87	205.539
20	2156.11	212.56
	2156.84	205.123
	2175.96	210.202
	2176.82	204.596
	2195.76	207.524
	2196.79	203.956
25	2215.51	204.481

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 2040.0, as shown in Table 17 and at **132** in FIG. 22.

TABLE 17

	Y	Z
35	1257.18	158.719
	1267.72	147.24
	1272.15	170.731
	1287.12	146.372
	1289.8	178.815
	1306.54	146.652
40	1308.07	185.405
	1325.95	147.449
	1326.65	191.083
	1345.34	148.599
	1345.4	196.166
	1364.28	200.732
	1364.72	150.029
45	1383.26	204.873
	1384.08	151.654
	1402.32	208.635
	1403.41	153.541
	1421.44	212.067
	1422.73	155.613
50	1440.61	215.202
	1442.02	157.865
	1459.83	218.056
	1461.3	160.257
	1479.08	220.656
	1480.58	162.703
55	1498.36	223.011
	1499.85	165.138
	1517.67	225.139
	1519.13	167.534
	1537.01	227.045
	1538.41	169.885
	1556.36	228.732
60	1557.7	172.178
	1575.73	230.203
	1577	174.404
	1595.12	231.443
	1596.31	176.561
	1614.52	232.446
65	1615.62	178.651
	1633.93	233.236

TABLE 17-continued

TABLE 18-continued

TABLE 17-continued		TABLE 18-continued		
Y	Z		Y	Z
1634.94	180.67		1351.47	147.594
1653.35	233.784	5	1352.08	190.109
1654.27	182.622		1370.28	195.099
1672.77	234.219		1370.31	148.731
1673.61	184.51		1388.61	199.588
1692.2	234.514		1389.13	150.135
1692.95	186.335		1407.04	203.664
1711.62	234.679	10	1407.93	151.727
1712.3	188.101		1425.54	207.372
1731.05	234.716		1426.71	153.562
1731.65	189.808		1444.11	210.76
1750.48	234.641		1445.48	155.574
1751	191.454		1462.72	213.86
1769.9	234.454	15	1464.22	157.753
1770.37	193.039		1481.38	216.687
1789.33	234.156		1482.95	160.062
1789.73	194.56		1500.08	219.267
1808.75	233.756		1501.68	162.418
1809.11	196.019		1518.8	221.61
1828.17	233.27	20	1520.41	164.763
1828.48	197.417		1537.56	223.732
1847.59	232.689		1539.14	167.075
1847.86	198.748		1556.33	225.638
1867	232.025		1557.87	169.347
1867.25	200.008		1575.13	227.331
1886.42	231.346	25	1576.61	171.569
1886.64	201.217		1593.94	228.815
1905.83	230.507		1595.36	173.734
1906.03	202.338		1612.77	230.075
1925.23	229.614		1614.11	175.839
1925.43	203.356		1631.62	231.104
1944.64	228.674	30	1632.88	177.884
1944.84	204.243		1650.47	231.925
1964.04	227.672		1651.64	179.87
1964.25	204.984		1669.34	232.513
1983.44	226.597		1670.42	181.796
1983.67	205.597		1688.2	232.992
2002.83	225.436	35	1689.2	183.668
2003.09	206.081		1707.07	233.334
2022.22	224.194		1707.98	185.484
2022.51	206.454		1725.94	233.549
2041.6	222.883		1726.77	187.25
2041.94	206.719		1744.81	233.64
2060.98	221.521	40	1745.57	188.964
2061.37	206.863		1763.69	233.621
2080.35	220.116		1764.36	190.624
2080.79	206.883		1782.56	233.495
2099.72	218.641		1783.17	192.233
2100.22	206.796		1801.43	233.262
2119.09	217.047	45	1801.98	193.786
2119.65	206.612		1820.3	232.926
2138.43	215.285		1820.79	195.286
2139.07	206.343		1839.17	232.51
2157.76	213.308		1839.61	196.734
2158.49	206.03		1858.03	232.003
2177.06	211.069	50	1858.43	198.125
2177.92	205.592		1876.9	231.411
2196.31	208.519		1877.25	199.453
2197.34	205.04		1895.76	230.808
2215.52	205.613		1896.08	200.731
			1914.61	230.048
			1914.92	201.934
			1933.47	229.235
			1933.76	203.037
			1952.32	228.377
			1952.6	204.013
			1971.17	227.459
			1971.46	204.845
			1990.02	226.47
			1990.32	205.549
		60	2008.86	225.397
			2009.18	206.133
			2027.7	224.246
			2028.05	206.605
			2046.53	223.028
			2046.91	206.976
		65	2065.36	221.76
			2065.79	207.223

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 2160.0, as shown in Table 18 and at **134** in FIG. **23**.

TABLE 18

Y	Z	
1284.67	158.489	
1294.9	147.329	
1299.19	170.189	
1313.74	146.506	
1316.32	178.089	
1332.61	146.799	65
1334.05	184.541	



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TABLE 18-continued

Y	Z
2084.19	220.45
2084.66	207.353
2103.01	219.072
2103.53	207.376
2121.82	217.579
2122.4	207.304
2140.62	215.922
2141.27	207.147
2159.4	214.057
2160.15	206.938
2178.15	211.936
2179.01	206.587
2196.87	209.513
2197.88	206.124
2215.54	206.745

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 2280.0, as shown in Table 19 and at **136** in FIG. **24**.

TABLE 19

Y	Z
1312.16	158.26
1322.08	147.42
1326.23	169.65
1340.37	146.64
1342.83	177.36
1358.69	146.95
1360.03	183.68
1376.99	147.74
1377.51	189.13
1395.16	194.03
1395.27	148.86
1412.94	198.44
1413.54	150.24
1430.81	202.45
1431.79	151.8
1448.76	206.11
1450.02	153.58
1466.77	209.45
1468.23	155.54
1484.83	212.52
1486.43	157.64
1502.94	215.32
1504.61	159.87
1521.07	217.88
1522.79	162.13
1539.24	220.21
1540.97	164.39
1557.44	222.32
1559.15	166.62
1575.66	224.23
1577.34	168.81
1593.9	225.93
1595.53	170.96
1612.15	227.43
1613.73	173.06
1630.43	228.71
1631.93	175.12
1648.71	229.76
1650.14	177.12
1667.01	230.62
1668.35	179.07
1685.32	231.24
1686.57	180.97
1703.63	231.76
1704.79	182.83
1721.94	232.15
1723.02	184.63
1740.26	232.42
1741.26	186.4
1758.58	232.57
1759.49	188.12
1776.89	232.6

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TABLE 19-continued

Y	Z
1777.73	189.8
1795.21	232.54
1795.98	191.43
1813.53	232.37
1814.23	193.01
1831.85	232.1
1832.48	194.55
1850.16	231.75
1850.74	196.04
1868.47	231.32
1869	197.49
1886.78	230.8
1887.26	198.89
1905.09	230.27
1905.53	200.24
1923.4	229.59
1923.81	201.53
1941.7	228.86
1942.08	202.72
1960.01	228.08
1960.37	203.78
1978.3	227.25
1978.67	204.7
1996.6	226.34
1996.97	205.5
2014.89	225.36
2015.27	206.18
2033.18	224.3
2033.58	206.76
2051.46	223.17
2051.89	207.23
2069.74	222
2070.21	207.58
2088.02	220.78
2088.52	207.82
2106.29	219.5
2106.84	207.96
2124.56	218.11
2125.16	208
2142.81	216.56
2143.48	207.95
2161.05	214.81
2161.8	207.84
2179.25	212.8
2180.11	207.58
2197.43	210.51
2198.43	207.21
2215.56	207.88

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 2400.0, as shown in Table 20 and at **138** in FIG. **25**.

TABLE 20

Y	Z
1339.65	158.021
1349.26	147.505
1353.27	169.1
1367	146.773
1369.35	176.634
1384.77	147.093
1386	182.811
1402.51	147.885
1402.94	188.158
1420.04	192.964
1420.24	148.993
1437.27	197.299
1437.95	150.349
1454.59	201.245
1455.65	151.874
1471.98	204.846
1473.33	153.607
1489.43	208.146
1490.99	155.497

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TABLE 20-continued

Y	Z
1506.94	211.176
1508.64	157.532
1524.48	213.948
1526.28	159.675
1542.07	216.489
1543.91	161.849
1559.68	218.807
1561.54	164.016
1577.32	220.917
1579.17	166.158
1594.98	222.823
1596.81	168.274
1612.66	224.53
1614.45	170.355
1630.36	226.04
1632.1	172.396
1648.08	227.339
1649.75	174.396
1665.81	228.421
1667.4	176.353
1683.55	229.308
1685.06	178.271
1701.3	229.974
1702.73	180.146
1719.06	230.538
1720.4	181.984
1736.81	230.973
1738.07	183.784
1754.58	231.289
1755.75	185.547
1772.34	231.489
1773.43	187.276
1790.1	231.585
1791.11	188.969
1807.87	231.58
1808.8	190.624
1825.63	231.473
1826.49	192.241
1843.39	231.272
1844.18	193.82
1861.15	230.993
1861.88	195.364
1878.91	230.629
1879.58	196.863
1896.67	230.186
1897.28	198.328
1914.43	229.732
1914.99	199.756
1932.19	229.13
1932.7	201.124
1949.94	228.478
1950.42	202.401
1967.69	227.784
1968.14	203.555
1985.44	227.034
1985.88	204.564
2003.18	226.216
2003.62	205.45
2020.92	225.32
2021.37	206.236
2038.66	224.349
2039.12	206.903
2056.39	223.317
2056.87	207.485
2074.13	222.237
2074.63	207.943
2091.85	221.117
2092.39	208.294
2109.58	219.934
2110.16	208.535
2127.3	218.642
2127.92	208.689
2145	217.196
2145.68	208.752
2162.69	215.554
2163.45	208.75
2180.35	213.67
2181.21	208.577

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TABLE 20-continued

Y	Z
2197.98	211.503
2198.97	208.292
2215.57	209.009

The upper and lower surfaces 28, 30 are defined at Y and Z positions corresponding substantially to the X position of 2520.0, as shown in Table 21 and at 140 in FIG. 26.

TABLE 21

Y	Z
1367.13	157.624
1376.43	147.413
1380.29	168.397
1393.62	146.725
1395.84	175.754
1410.82	147.062
1411.96	181.799
1428.02	147.845
1428.35	187.046
1444.9	191.758
1445.19	148.938
1461.57	196.022
1462.35	150.267
1478.34	199.907
1479.5	151.76
1495.18	203.462
1496.62	153.439
1512.08	206.721
1513.74	155.27
1529.02	209.717
1530.84	157.234
1546.01	212.469
1547.92	159.292
1563.04	214.993
1565.01	161.377
1580.09	217.303
1582.09	163.454
1597.17	219.41
1599.18	165.513
1614.28	221.32
1616.27	167.55
1631.4	223.039
1633.36	169.561
1648.55	224.565
1650.46	171.542
1665.71	225.885
1667.56	173.491
1682.88	226.997
1684.66	175.407
1700.07	227.925
1701.77	177.291
1717.26	228.629
1718.88	179.143
1734.46	229.242
1735.99	180.965
1751.67	229.725
1753.11	182.758
1768.87	230.089
1770.23	184.523
1786.08	230.347
1787.35	186.26
1803.29	230.501
1804.48	187.969
1820.5	230.556
1821.61	189.649
1837.71	230.516
1838.74	191.3
1854.92	230.385
1855.87	192.921
1872.13	230.17
1873.01	194.512
1889.34	229.88
1890.15	196.075
1906.55	229.521

TABLE 21-continued

TABLE 22-continued

Y	Z		Y	Z
1907.29	197.61		1649.73	215.483
1923.76	229.096	5	1651.7	160.363
1924.44	199.114		1666.32	217.105
1940.96	228.603		1668.26	162.314
1941.59	200.566		1682.92	218.53
1958.16	228.041		1684.81	164.245
1958.74	201.933		1699.54	219.76
1975.36	227.423	10	1701.37	166.154
1975.91	203.178		1716.18	220.806
1992.56	226.755		1717.93	168.042
1993.08	204.283		1732.83	221.608
2009.75	226.02		1734.49	169.909
2010.27	205.267		1749.48	222.304
2026.95	225.21	15	1751.06	171.756
2027.45	206.149		1766.14	222.891
2044.13	224.328		1767.63	173.584
2044.65	206.925		1782.8	223.354
2061.32	223.383		1784.2	175.394
2061.84	207.596		1799.46	223.7
2078.5	222.393	20	1800.77	177.184
2079.05	208.161		1816.13	223.942
2095.68	221.364		1817.34	178.957
2096.25	208.622		1832.8	224.084
2112.86	220.272		1833.92	180.711
2113.46	208.981		1849.46	224.128
2130.03	219.073	25	1850.5	182.445
2130.67	209.241		1866.13	224.078
2147.18	217.726		1867.08	184.158
2147.88	209.413		1882.8	223.941
2164.33	216.185		1883.66	185.852
2165.09	209.51		1899.47	223.725
2181.44	214.408	30	1900.24	187.526
2182.3	209.426		1916.13	223.436
2198.53	212.353		1916.83	189.182
2199.51	209.219		1932.79	223.075
2215.58	209.976		1933.41	190.819
			1949.46	222.64
			1950	192.427
			1966.12	222.129
			1966.6	193.966
			1982.77	221.555
			1983.21	195.387
		40	1999.43	220.927
			1999.83	196.655
			2016.08	220.226
			2016.46	197.793
			2032.73	219.441
			2033.09	198.819
		45	2049.38	218.573
			2049.74	199.731
			2066.02	217.627
			2066.39	200.529
			2082.66	216.618
			2083.04	201.213
		50	2099.29	215.559
			2099.7	201.78
			2115.92	214.424
			2116.36	202.23
			2132.54	213.169
		55	2133.03	202.564
			2149.14	211.741
			2149.69	202.785
			2165.73	210.084
			2166.36	202.904
			2182.28	208.144
		60	2183.03	202.792
			2198.79	205.857
			2199.69	202.501
			2215.24	203.162

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 2640.0, as shown in Table 22 and at **142** in FIG. **27**.

TABLE 22

Y	Z	
1394.47	149.48	
1402.87	139.041	
1407.13	160.038	
1419.51	138.27	
1422.1	167.358	45
1436.18	138.573	
1437.63	173.403	
1452.83	139.328	
1453.44	178.668	
1469.42	183.41	
1469.46	140.384	50
1485.52	187.715	
1486.08	141.676	
1501.72	191.649	
1502.69	143.13	
1517.99	195.261	
1519.28	144.746	55
1534.32	198.585	
1535.85	146.506	
1550.71	201.65	
1552.41	148.398	
1567.13	204.476	
1568.96	150.384	
1583.59	207.079	60
1585.51	152.398	
1600.09	209.472	
1602.05	154.408	
1616.61	211.667	
1618.6	156.407	
1633.16	213.67	65
1635.15	158.393	

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 2760.0, as shown in Table 23 and at **144** in FIG. **28**.

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TABLE 23

Y	Z
1423.1	128.141
1431.64	118.295
1435.19	138.463
1447.69	117.651
1449.59	145.592
1463.76	118.022
1464.55	151.467
1479.8	156.583
1479.82	118.823
1495.2	161.184
1495.86	119.92
1510.73	165.351
1511.88	121.235
1526.35	169.155
1527.89	122.708
1542.05	172.641
1543.89	124.331
1557.8	175.845
1559.87	126.091
1573.61	178.797
1575.83	127.968
1589.45	181.514
1591.79	129.91
1605.34	184.014
1607.75	131.858
1621.25	186.309
1623.71	133.798
1637.19	188.41
1639.67	135.729
1653.16	190.323
1655.63	137.649
1669.14	192.045
1671.6	139.555
1685.15	193.578
1687.56	141.445
1701.17	194.924
1703.53	143.319
1717.2	196.084
1719.5	145.176
1733.25	197.036
1735.47	147.018
1749.32	197.8
1751.44	148.843
1765.38	198.484
1767.42	150.654
1781.45	199.045
1783.39	152.45
1797.52	199.49
1799.37	154.232
1813.59	199.831
1815.35	156.001
1829.67	200.074
1831.33	157.755
1845.75	200.226
1847.31	159.495
1861.83	200.289
1863.3	161.22
1877.91	200.268
1879.28	162.929
1893.98	200.171
1895.27	164.624
1910.06	200.003
1911.26	166.306
1926.14	199.771
1927.25	167.975
1942.21	199.477
1943.24	169.625
1958.29	199.118
1959.24	171.236
1974.36	198.697
1975.24	172.761
1990.43	198.227
1991.26	174.163
2006.5	197.711
2007.28	175.43
2022.57	197.131
2023.32	176.589
2038.64	196.482

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TABLE 23-continued

Y	Z
2039.36	177.657
2054.7	195.772
2055.41	178.629
2070.76	195.013
2071.46	179.502
2086.82	194.211
2087.52	180.278
2102.87	193.381
2103.58	180.959
2118.93	192.495
2119.65	181.547
2134.98	191.517
2135.72	182.047
2151.02	190.409
2151.79	182.466
2167.04	189.136
2167.86	182.798
2183.05	187.662
2183.94	182.937
2199.04	185.957
2200.01	182.967
2215	183.991

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 2880.0, as shown in Table 24 and at **146** in FIG. 29.

TABLE 24

Y	Z
1491.84	105.988
1500.75	97.6649
1502.74	115.477
1515.39	97.2462
1515.94	121.839
1529.66	126.996
1530.04	97.6842
1543.63	131.459
1544.67	98.4911
1557.74	135.423
1559.29	99.5643
1571.97	138.976
1573.89	100.816
1586.28	142.189
1588.48	102.209
1600.65	145.107
1603.05	103.733
1615.07	147.767
1617.62	105.371
1629.53	150.197
1632.17	107.095
1644.02	152.414
1646.72	108.843
1658.54	154.437
1661.27	110.582
1673.09	156.279
1675.82	112.31
1687.66	157.948
1690.38	114.027
1702.24	159.447
1704.93	115.729
1716.85	160.78
1719.49	117.415
1731.46	161.95
1734.05	119.084
1746.09	162.963
1748.61	120.736
1760.73	163.807
1763.18	122.371
1775.38	164.485
1777.74	123.989
1790.03	165.093
1792.31	125.592
1804.68	165.606
1806.88	127.179

TABLE 24-continued

Y	Z
1819.34	166.027
1821.45	128.751
1834	166.365
1836.02	130.308
1848.66	166.627
1850.59	131.85
1863.32	166.82
1865.17	133.376
1877.99	166.946
1879.75	134.888
1892.65	167.011
1894.32	136.382
1907.31	167.019
1908.9	137.861
1921.97	166.977
1923.49	139.324
1936.64	166.889
1938.07	140.772
1951.3	166.759
1952.65	142.204
1965.96	166.588
1967.24	143.615
1980.62	166.376
1981.83	144.983
1995.29	166.127
1996.43	146.278
2009.95	165.849
2011.04	147.478
2024.61	165.542
2025.65	148.576
2039.27	165.194
2040.27	149.597
2053.92	164.805
2054.89	150.546
2068.58	164.379
2069.52	151.424
2083.24	163.923
2084.15	152.23
2097.89	163.442
2098.79	152.962
2112.55	162.944
2113.43	153.623
2127.2	162.413
2128.07	154.213
2141.85	161.823
2142.72	154.734
2156.5	161.148
2157.37	155.189
2171.14	160.359
2172.02	155.578
2185.77	159.427
2186.67	155.828
2200.4	158.32
2201.32	155.961
2215	157.003

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 3000.0, as shown in Table 25 and at **148** in FIG. 30.

TABLE 25

Y	Z
1648.32	91.5407
1655.24	84.8022
1657.03	98.7589
1666.71	84.4397
1667.47	103.513
1678.18	84.7776
1678.3	107.309
1689.3	110.564
1689.64	85.4011
1700.42	113.419
1701.09	86.2148
1711.61	115.958

TABLE 25-continued

Y	Z
1712.53	87.1624
1722.85	118.235
1723.96	88.2029
1734.14	120.291
1735.38	89.3282
1745.47	122.155
1746.8	90.5268
1756.82	123.85
1758.21	91.7858
1768.19	125.392
1769.62	93.077
1779.58	126.795
1781.02	94.3645
1790.98	128.071
1792.43	95.6394
1802.4	129.228
1803.84	96.9011
1813.83	130.272
1815.25	98.1491
1825.27	131.207
1826.66	99.3821
1836.71	132.035
1838.07	100.599
1848.17	132.763
1849.49	101.799
1859.62	133.393
1860.91	102.983
1871.09	133.922
1872.33	104.151
1882.56	134.347
1883.75	105.301
1894.03	134.72
1895.17	106.435
1905.5	135.041
1906.59	107.553
1916.97	135.302
1918.02	108.654
1928.44	135.51
1929.45	109.739
1939.92	135.667
1940.88	110.807
1951.4	135.778
1952.31	111.858
1962.87	135.845
1963.74	112.892
1974.35	135.868
1975.17	113.907
1985.82	135.85
1986.61	114.904
1997.3	135.791
1998.04	115.88
2008.77	135.695
2009.48	116.836
2020.25	135.563
2020.92	117.772
2031.72	135.396
2032.36	118.688
2043.2	135.194
2043.81	119.581
2054.67	134.955
2055.25	120.448
2066.14	134.679
2066.7	121.277
2077.62	134.365
2078.16	122.048
2089.09	134.014
2089.61	122.748
2100.56	133.625
2101.07	123.368
2112.02	133.187
2112.54	123.916
2123.49	132.696
2124.01	124.395
2134.95	132.151
2135.48	124.801
2146.41	131.552
2146.95	125.129
2157.87	130.896

TABLE 25-continued

Y	Z
2158.43	125.373
2169.32	130.175
2169.91	125.525
2180.77	129.357
2181.39	125.578
2192.2	128.395
2192.86	125.526
2203.62	127.223
2204.34	125.313
2215	125.747

The upper and lower surfaces **28, 30** are defined at Y and Z positions corresponding substantially to the X position of 3120.0, as shown in Table 26 and at **150** in FIG. **31**.

TABLE 26

Y	Z
2068.13	86.96
2068.78	85.27
2070.95	87.9
2071.7	84.73
2073.85	88.54
2074.67	84.58
2076.79	89.06
2077.64	84.55
2079.73	89.5
2080.62	84.57
2082.68	89.89
2083.59	84.61
2085.64	90.23
2086.57	84.67
2088.6	90.53
2089.54	84.74
2091.56	90.8
2092.52	84.82
2094.53	91.05
2095.49	84.91
2097.5	91.27
2098.47	85
2100.47	91.47
2101.44	85.09
2103.44	91.65
2104.42	85.18
2106.41	91.81
2107.39	85.28
2109.38	91.96
2110.37	85.37
2112.35	92.09
2113.34	85.47
2115.33	92.2
2116.31	85.56
2118.3	92.3
2119.29	85.66
2121.28	92.38
2122.26	85.75
2124.25	92.45
2125.24	85.84
2127.23	92.51
2128.21	85.94
2130.21	92.55
2131.19	86.02
2133.18	92.58
2134.16	86.11
2136.16	92.6
2137.13	86.2
2139.14	92.6
2140.11	86.28
2142.11	92.6
2143.08	86.36
2145.09	92.58
2146.06	86.43
2148.06	92.55
2149.03	86.51
2151.04	92.51

TABLE 26-continued

Y	Z
2152.01	86.57
2154.02	92.46
2154.98	86.64
2156.99	92.4
2157.96	86.7
2159.97	92.33
2160.93	86.76
2162.94	92.25
2163.91	86.81
2165.92	92.16
2166.88	86.86
2168.89	92.05
2169.86	86.9
2171.87	91.94
2172.83	86.95
2174.84	91.82
2175.81	86.99
2177.81	91.69
2178.79	87.04
2180.79	91.54
2181.76	87.1
2183.76	91.38
2184.74	87.16
2186.73	91.2
2187.71	87.22
2189.7	91.02
2190.69	87.29
2192.67	90.82
2193.66	87.36
2195.64	90.61
2196.64	87.44
2198.6	90.39
2199.61	87.53
2201.57	90.15
2202.59	87.62
2204.54	89.9
2205.56	87.72
2207.5	89.65
2208.54	87.82
2210.46	89.38
2211.51	87.93
2213.43	89.09
2214.48	88.04

While the best modes for carrying out the invention have been described in detail, those familiar with the art to which this invention relates will recognize various alternative designs and embodiments for practicing the invention within the scope of the appended claims.

What is claimed as new and desired to be secured by Letters Patent of the United States is:

1. An aircraft configured for flight in an atmosphere having a low density, the aircraft comprising:
  - a fuselage;
  - a pair of wings extending from the fuselage in opposition to one another;
  - a rear stabilizer extending from the fuselage in spaced relationship to the pair of wings;
 wherein each of the fuselage, the pair of wings, and the rear stabilizer present an upper surface opposing a lower surface;
  - wherein the upper and lower surfaces are defined at an X position along an X-axis in a 3-dimensional X, Y, Z configuration; and
  - wherein the upper and lower surfaces are defined at Y and Z positions along respective Y and Z axes, corresponding substantially to the following table:

-continued

47		48	
Y	Z	Y	Z
1005.68	117.26	3817.10	687.46
1037.25	437.34	3822.01	647.30
1049.79	117.67	3836.67	689.38
1081.35	438.41	3840.99	646.64
1093.90	118.26	384.41	340.58
1125.46	438.83	3856.25	691.10
1138.00	119.03	3859.99	646.44
1169.57	438.60	3875.86	692.61
1182.11	119.96	3878.99	646.57
1213.67	437.72	388.22	123.63
1226.20	121.01	3895.47	694.00
1257.75	436.19	3897.98	647.01
1270.30	122.11	3915.08	695.32
1301.81	434.01	3916.97	647.73
1314.40	123.20	3934.71	696.47
1345.83	431.19	3935.94	648.72
1358.50	124.30	3954.35	697.51
1389.81	427.74	3954.91	649.85
1402.59	125.48	3973.87	651.12
1433.73	423.67	3973.98	698.57
1446.68	126.77	3992.81	652.63
1477.59	419.01	3993.61	699.65
1490.77	128.22	4011.73	654.36
1521.39	413.76	4013.25	700.76
1534.85	129.87	4030.63	656.29
1565.12	407.93	4032.88	701.89
1578.92	131.74	4049.51	658.39
1608.77	401.56	4052.51	703.04
1622.98	133.88	4068.38	660.63
1652.34	394.68	4072.14	704.20
1667.02	136.33	4087.23	662.99
1695.83	387.34	4091.77	705.37
1711.05	139.13	4106.07	665.47
1739.27	379.66	4111.39	706.53
1755.04	142.31	4124.89	668.04
1782.65	371.68	4131.02	707.69
1799.01	145.91	4143.70	670.71
1825.98	363.42	4150.65	708.86
1842.93	149.98	4162.50	673.48
1869.25	354.84	4166.85	699.98
1886.80	154.56	4181.28	676.32
1912.45	345.90	4181.67	687.05
191.27	193.72	4198.83	681.03
1930.61	159.67	4200.06	679.25
1955.57	336.63	4218.82	682.24
195.79	236.57	426.85	352.58
1974.36	165.31	432.29	121.80
1998.63	327.04	469.58	363.51
2018.04	171.45	476.39	120.56
2041.63	317.21	512.54	373.55
2061.66	178.05	520.48	119.50
2084.61	307.28	555.68	382.76
2105.22	185.01	564.59	118.60
2127.58	297.33	598.98	391.18
2148.72	192.28	608.69	117.90
2170.47	287.02	642.42	398.84
217.43	159.25	652.80	117.40
2192.19	199.79	685.98	405.76
2213.16	275.91	696.91	117.05
2235.63	207.48	729.65	411.98
223.69	270.30	741.02	116.83
2255.58	263.80	773.41	417.53
2279.04	215.29	785.13	116.70
2297.80	251.03	817.25	422.43
2321.20	224.19	829.24	116.66
257.36	140.96	861.15	426.68
260.67	294.21	873.35	116.71
300.44	131.64	905.12	430.30
300.83	312.40	917.46	116.82
342.35	327.29	949.13	433.28
344.24	126.54	961.57	117.00
3744.64	668.04	993.17	435.63.
3758.76	679.04		
3765.49	654.10		
3778.09	682.59		
3784.17	650.65		
3797.57	685.21		
3803.05	648.55		

2. An aircraft, as set forth in claim 1, wherein the X position corresponds substantially to 120.00.

3. An aircraft, as set forth in claim 2, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 240.00; and

wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1008.69	127.06
1035.50	427.37
1055.31	127.70
1082.12	428.34
1101.92	128.52
1128.74	428.60
1148.53	129.52
1175.36	428.16
1195.14	130.67
1221.97	427.01
1241.75	131.90
1268.56	425.16
1288.36	133.13
1315.11	422.62
1334.97	134.31
1361.62	419.40
1381.58	135.49
1408.08	415.51
1428.18	136.76
1454.48	410.96
1474.78	138.17
1500.81	405.74
1521.38	139.78
1547.07	399.92
1567.97	141.55
1593.25	393.54
1614.55	143.52
1639.37	386.67
1661.12	145.73
1685.42	379.37
1707.68	148.24
1731.41	371.73
1754.21	151.10
1777.36	363.82
1800.72	154.39
1823.26	355.65
1847.19	158.14
1869.11	347.17
1893.62	162.36
1914.91	338.47
1940.02	166.93
1960.69	329.65
1986.38	171.86
2006.45	320.69
2032.70	177.22
2052.16	311.53
2078.96	181.86
2097.84	302.18
2125.33	176.99
2143.44	292.47
2171.70	172.12
2188.87	281.99
2218.07	167.24
2229.98	271.22
2264.44	162.37
2274.71	258.07
2310.80	157.50
2319.28	244.41
2348.36	224.64
2357.32	155.36
2394.98	224.64
2403.94	155.36
2441.61	224.64
2450.53	155.55
2487.43	232.42
2494.11	172.14
2533.33	240.64
2537.23	189.87
2579.49	209.55

-continued

Y	Z
2579.59	246.32
2617.72	235.62
375.12	256.43
375.38	211.58
3785.74	578.95
3812.53	591.49
3818.72	563.38
3844.17	595.82
3850.44	560.38
3875.93	599.02
3882.31	559.49
3907.76	601.60
3914.19	559.73
3939.60	603.87
3946.06	560.73
3971.45	606.08
3977.89	562.42
4003.30	608.33
4009.70	564.57
4035.15	610.63
4041.47	567.25
404.71	291.98
4066.99	612.96
4073.18	570.54
408.89	180.02
4098.83	615.30
4104.84	574.31
4130.68	617.66
4136.45	578.44
4162.52	620.02
4168.02	582.89
4194.36	622.41
4199.55	587.61
4226.19	624.81
4231.05	592.57
4258.03	627.25
4262.51	597.73
4289.86	629.73
4293.95	603.02
4321.69	632.26
4325.36	608.45
4353.51	634.85
4356.76	614.01
4385.33	637.50
4388.13	619.68
4417.14	640.23
4419.48	625.46
443.64	317.50
4448.95	643.04
4450.83	631.30
4480.74	645.95
4482.16	637.19
4512.52	649.00
4513.49	643.11
451.81	162.04
4544.29	652.24
4544.81	649.04
4576.04	655.48
485.93	337.08
497.07	150.97
529.74	353.01
543.10	143.56
574.36	366.50
589.41	138.24
619.51	378.10
635.87	134.33
665.05	388.12
682.41	131.46
710.86	396.76
728.98	129.39
756.89	404.15
775.58	127.96
803.09	410.42
822.20	127.05
849.42	415.64
868.82	126.58
895.85	419.88
915.44	126.47



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-continued

Y	Z
942.36	423.21
962.07	126.64
988.91	425.68.

4. An aircraft, as set forth in claim 1, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 360.00; and

wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1086.84	190.93
1102.24	349.39
1198.80	193.20
1214.21	348.27
1310.75	195.91
1326.09	343.42
1422.70	198.87
1437.77	335.26
1534.62	202.55
1549.19	324.11
1646.51	207.09
1660.41	311.04
1758.38	212.21
1771.53	297.17
1870.25	217.19
1882.71	283.67
1898.79	281.75
1914.87	279.80
1930.94	277.82
1947.01	275.81
1963.08	273.77
1979.14	271.69
1982.18	220.41
1994.25	220.57
1995.20	269.58
2006.30	220.73
2011.25	267.45
2018.35	220.89
2027.30	265.29
2030.40	221.06
2042.44	221.23
2043.35	263.11
2054.49	221.41
2059.39	260.89
2066.54	221.59
2075.43	258.65
2078.58	221.78
2090.63	221.97
2091.46	256.38
2102.68	222.16
2107.49	254.08
2114.72	222.36
2123.52	251.74
2126.77	222.57
2138.82	222.79
2139.54	249.35
2150.86	223.01
2155.55	246.93
2162.91	223.25
2171.56	244.47
2174.96	223.49
2187.00	223.73
2187.56	241.96
2199.05	223.96
2203.55	239.41
2211.10	224.17
2219.53	236.81
2223.14	224.35
2235.19	224.53
2235.51	234.15

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-continued

Y	Z
2247.24	224.76
2251.48	231.44
2259.28	225.00
2267.43	228.68
2271.33	225.19
2283.38	225.34
3048.66	358.95
3081.81	392.98
3107.69	361.82
3136.06	416.99
3166.11	372.19
3191.42	438.32
3224.07	384.89
3247.35	458.10
3281.70	399.03
3303.68	476.74
3339.04	414.27
3360.32	494.40
3396.12	430.48
3417.24	511.15
3452.93	447.60
3474.42	526.97
3509.45	465.66
3531.88	541.76
3565.62	484.79
3589.64	555.29
3621.32	505.25
3647.80	567.02
3676.23	527.69
3706.54	575.16
3728.99	554.71
3826.84	489.85
3832.12	496.49
3840.92	499.08
3847.10	535.94
3847.74	526.80
3848.05	545.04
3849.86	517.90
3849.91	500.87
3850.83	553.76
3853.66	509.57
3855.48	561.64
3857.12	475.49
3858.96	502.36
3861.71	568.34
3869.10	573.75
3877.22	577.98
3885.81	581.18
3886.67	472.77
3894.67	583.54
3903.68	585.18
3912.79	586.24
3916.34	472.11
3921.94	586.79
3931.11	586.90
3940.27	586.64
3946.02	472.46
3949.42	586.05
3958.54	585.16
3967.64	584.00
3975.68	473.52
3976.70	582.60
3985.72	580.97
3994.70	579.14
4003.64	577.12
4005.32	475.08
4012.54	574.92
4017.44	517.03
4021.40	572.55
4023.21	516.81
4025.68	521.05
4030.21	570.02
4032.35	517.48
4033.84	525.22
4034.93	477.15
4038.98	567.34
4041.49	518.14
4041.93	529.53

-continued

Y	Z
4045.14	562.47
4046.03	553.34
4046.92	544.22
4047.81	535.09
4050.64	518.81
4059.78	519.47
4064.51	479.52
4068.92	520.14
4078.07	520.80
4087.21	521.46
4094.05	482.41
4096.36	522.12
4105.50	522.79
4114.64	523.46
4123.54	485.79
4123.79	524.12
4132.93	524.79
4142.07	525.47
4151.22	526.14
4152.98	489.55
4160.36	526.82
4169.50	527.51
4178.64	528.19
4182.39	493.62
4187.79	528.87
4196.93	529.56
4206.07	530.25
4211.75	497.96
4215.21	530.94
4224.35	531.63
4233.49	532.32
4241.07	502.55
4242.64	533.02
4251.78	533.71
4260.92	534.41
4270.06	535.12
4270.36	507.33
4279.20	535.83
4288.34	536.54
4297.48	537.26
4299.63	512.26
4306.62	537.98
4315.76	538.71
4324.90	539.45
4328.88	517.33
4334.03	540.19
4343.17	540.93
4352.31	541.68
4358.11	522.51
4361.44	542.44
4370.58	543.20
4379.72	543.97
4387.31	527.80
4388.85	544.75
4397.99	545.53
4407.12	546.32
4416.25	547.11
4416.50	533.19
4425.39	547.92
4434.52	548.73
4443.65	549.55
4445.68	538.63
4452.78	550.38
4461.91	551.21
4471.04	552.06
4474.85	544.10
4480.17	552.91
4489.29	553.77
4498.42	554.65
4504.02	549.59
4507.54	555.54
4516.66	556.50
4525.78	557.42
4533.18	555.15
4534.90	558.35
4544.02	559.30
4553.13	560.29
4562.25	561.12

-continued

Y	Z
559.57	250.22
639.33	201.09
658.26	300.04
750.95	192.40
767.61	323.90
862.89	189.60
878.62	338.46
974.87	189.52
990.30	346.44.

5. An aircraft, as set forth in claim 2, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 480.00; and wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1077.08	199.89
1082.96	322.95
1206.22	199.56
1212.07	325.39
1335.36	200.25
1341.18	322.85
1464.49	201.92
1470.13	315.91
1593.60	204.67
1598.83	305.33
1722.69	208.38
1727.32	292.36
1851.78	211.95
1855.65	277.99
1980.88	214.94
1983.77	261.74
2109.98	218.44
2111.60	243.44
2239.06	222.40
3867.94	400.76
3871.64	405.98
3878.13	408.22
3884.81	409.80
3891.56	411.11
3895.51	387.56
3898.33	412.24
3905.13	413.23
3911.94	414.10
3918.76	414.91
3922.87	385.00
3925.59	415.68
3932.42	416.38
3939.25	417.04
3946.09	417.66
3950.34	384.38
3952.94	418.25
3959.78	418.83
3966.63	419.39
3973.47	419.94
3977.82	384.81
3980.32	420.49
3987.17	421.03
3994.01	421.57
4000.86	422.10
4005.28	385.91
4007.71	422.62
4014.56	423.15
4021.41	423.67
4028.25	424.19
4032.72	387.49
4035.10	424.71
4041.95	425.22
4048.80	425.72
4055.65	426.22

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Y	Z
4060.13	389.44
4062.50	426.72
4069.35	427.21
4076.20	427.70
4083.05	428.19
4087.52	391.73
4089.91	428.68
4096.76	429.17
4103.61	429.66
4110.46	430.15
4114.89	394.28
4117.31	430.64
4124.16	431.14
4131.01	431.63
4137.86	432.13
4142.21	397.27
4144.71	432.63
4151.56	433.14
4158.41	433.64
4165.26	434.15
4169.48	400.66
4172.11	434.66
4178.96	435.17
4185.81	435.69
4192.65	436.20
4196.72	404.35
4199.50	436.71
4206.35	437.23
4213.20	437.74
4220.05	438.26
4223.91	408.31
4226.90	438.78
4233.75	439.29
4240.60	439.81
4247.44	440.33
4251.07	412.53
4254.29	440.85
4261.14	441.38
4267.99	441.90
4274.84	442.43
4278.20	416.94
4281.69	442.96
4288.53	443.49
4295.38	444.03
4302.23	444.57
4305.30	421.50
4309.07	445.11
4315.92	445.66
4322.77	446.20
4329.61	446.76
4332.38	426.19
4336.46	447.31
4343.30	447.87
4350.15	448.43
4356.99	449.00
4359.44	431.00
4363.84	449.57
4370.68	450.14
4377.53	450.72
4384.37	451.30
4386.48	435.92
4391.21	451.89
4398.06	452.48
4404.90	453.07
4411.74	453.67
4413.51	440.91
4418.58	454.27
4425.43	454.87
4432.27	455.48
4439.11	456.10
4440.53	445.93
4445.95	456.73
4452.79	457.36
4459.62	457.99
4466.46	458.63
4467.54	450.99
4473.30	459.27
4480.14	459.92

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Y	Z
4486.98	460.57
4493.81	461.23
4494.55	456.08
4500.65	461.90
4507.48	462.63
4514.31	463.31
4521.14	464.01
4521.54	461.25
4527.98	464.71
4534.81	465.43
4541.64	466.17
4548.47	466.77
690.16	215.29
699.61	273.01
818.87	205.28
825.87	299.61
947.95	201.53
954.09	314.78.

6. An aircraft, as set forth in claim 1, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 600.00; and wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1002.53	196.57
1008.08	303.00
1124.05	195.41
1129.33	310.96
1245.58	195.46
1250.83	313.53
1367.11	196.43
1372.33	311.41
1488.62	198.30
1493.70	305.16
1610.12	201.16
1614.84	295.48
1731.59	204.88
1735.78	283.56
1853.07	208.45
1856.59	270.31
1974.56	211.45
1977.18	255.29
2096.04	214.92
2097.53	238.35
2217.51	218.79
3909.04	311.66
3912.74	316.21
3918.68	318.32
3924.80	319.87
3930.99	321.12
3933.90	299.62
3937.21	322.15
3943.46	323.04
3949.72	323.86
3955.99	324.61
3959.06	297.15
3962.26	325.29
3968.54	325.93
3974.83	326.54
3981.11	327.12
3984.33	296.48
3987.40	327.69
3993.69	328.25
3999.97	328.80
4006.26	329.34
4009.62	296.89
4012.55	329.86
4018.84	330.38
4025.13	330.89

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-continued

Y	Z
4031.43	331.39
4034.88	297.89
4037.72	331.89
4044.01	332.38
4050.31	332.86
4056.60	333.33
4060.12	299.45
4062.89	333.80
4069.19	334.25
4075.49	334.70
4081.78	335.15
4085.34	301.39
4088.08	335.59
4094.37	336.04
4100.67	336.48
4106.97	336.92
4110.53	303.61
4113.26	337.36
4119.56	337.81
4125.86	338.25
4132.15	338.70
4135.70	306.06
4138.45	339.16
4144.74	339.61
4151.04	340.07
4157.33	340.53
4160.84	308.72
4163.63	341.00
4169.92	341.46
4176.22	341.93
4182.51	342.40
4185.95	311.75
4188.81	342.87
4195.10	343.34
4201.40	343.82
4207.69	344.29
4211.02	315.08
4213.98	344.76
4220.28	345.23
4226.57	345.71
4232.87	346.18
4236.05	318.67
4239.16	346.66
4245.46	347.13
4251.75	347.61
4258.04	348.09
4261.04	322.50
4264.34	348.57
4270.63	349.05
4276.92	349.53
4283.22	350.02
4286.01	326.54
4289.51	350.51
4295.80	351.00
4302.10	351.49
4308.39	351.99
4310.95	330.73
4314.68	352.49
4320.97	352.99
4327.26	353.49
4333.56	354.00
4335.86	335.06
4339.85	354.51
4346.14	355.02
4352.43	355.54
4358.72	356.06
4360.76	339.50
4365.01	356.59
4371.30	357.12
4377.59	357.65
4383.88	358.18
4385.64	344.03
4390.17	358.72
4396.46	359.26
4402.74	359.81
4409.03	360.36
4410.51	348.61
4415.32	360.92

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-continued

Y	Z
4421.61	361.48
4427.89	362.04
4434.18	362.60
4435.37	353.22
4440.47	363.18
4446.75	363.76
4453.04	364.35
4459.32	364.95
4460.22	357.88
4465.60	365.54
4471.89	366.14
4478.17	366.74
4484.45	367.34
4485.07	362.58
4490.73	367.96
4497.02	368.59
4503.29	369.25
4509.57	369.89
4509.91	367.32
4515.85	370.54
4522.13	371.19
4528.40	371.88
4534.68	372.41
759.89	208.82
768.68	263.12
881.04	199.75
887.44	288.44.

7. An aircraft, as set forth in claim 1, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 720.00; and wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1057.50	189.57
1062.37	288.34
1173.27	190.72
1177.84	296.68
1289.03	192.65
1293.56	299.84
1404.79	194.98
1409.32	298.43
1520.53	197.72
1524.98	293.14
1636.26	200.95
1640.44	284.67
1751.98	204.55
1755.73	274.07
1867.72	207.66
1870.89	262.15
1983.47	209.90
1985.86	248.54
2099.23	212.16
2100.61	233.12
2214.98	214.62
3950.14	222.57
3953.72	226.60
3959.07	228.71
3964.63	230.20
3970.28	231.29
3972.28	211.68
3975.97	232.22
3981.66	233.04
3987.38	233.76
3993.09	234.43
3995.23	209.25
3998.82	235.05
4004.54	235.65
4010.27	236.23
4016.00	236.80



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-continued

Y	Z
4102.93	150.74
4107.14	151.02
4111.35	151.30
4115.57	151.59
4119.78	151.87
4123.99	152.15
4128.21	152.44
4132.42	152.73
4136.63	153.02
4140.84	153.31
4141.74	124.32
4145.06	153.61
4149.27	153.90
4153.48	154.20
4157.10	125.80
4157.69	154.50
4161.91	154.81
4166.12	155.12
4170.33	155.42
4172.44	127.46
4174.54	155.73
4178.75	156.05
4182.96	156.36
4187.17	156.67
4187.76	129.27
4191.38	156.99
4195.59	157.30
4199.81	157.62
4203.07	131.18
4204.02	157.93
4208.23	158.25
4212.44	158.57
4216.65	158.88
4218.37	133.20
4220.86	159.20
4225.07	159.51
4229.28	159.83
4233.49	160.14
4233.66	135.30
4237.70	160.46
4241.91	160.78
4246.13	161.09
4248.93	137.50
4250.34	161.41
4254.55	161.73
4258.76	162.05
4262.97	162.36
4264.19	139.78
4267.18	162.68
4271.39	163.00
4275.60	163.33
4279.44	142.15
4279.81	163.65
4284.02	163.97
4288.23	164.29
4292.44	164.62
4294.67	144.59
4296.65	164.94
4300.86	165.27
4305.07	165.60
4309.28	165.92
4309.90	147.11
4313.49	166.25
4317.70	166.59
4321.91	166.92
4325.11	149.69
4326.12	167.25
4330.33	167.59
4334.54	167.92
4338.75	168.26
4340.31	152.34
4342.96	168.60
4347.17	168.94
4351.38	169.29
4355.50	155.03
4355.58	169.63
4359.79	169.98
4364.00	170.33

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-continued

Y	Z
4368.21	170.68
4370.69	157.76
4372.42	171.03
4376.62	171.39
4380.83	171.74
4385.04	172.10
4385.87	160.52
4389.25	172.46
4393.45	172.83
4397.66	173.19
4401.05	163.31
4401.87	173.56
4406.07	173.93
4410.28	174.30
4414.49	174.67
4416.22	166.13
4418.69	175.05
4422.90	175.43
4427.10	175.81
4431.31	176.19
4431.38	168.99
4435.51	176.58
4439.72	176.97
4443.92	177.36
4446.54	171.87
4448.13	177.76
4452.33	178.16
4456.53	178.58
4460.73	179.00
4461.70	174.74
4464.94	179.43
4469.14	179.85
4473.34	180.27
4476.87	177.58
4477.54	180.69
4481.74	181.12
4485.94	181.55
4490.14	182.00
4492.02	180.51
4494.34	182.45
4498.54	182.90
4502.74	183.35
4507.11	183.71
892.09	185.17
900.01	233.46.

9. An aircraft, as set forth in claim 1, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 960.00; and

wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1010.85	170.95
1015.43	232.32
1037.07	170.84
1041.03	237.97
1063.28	171.16
1066.76	242.99
1089.49	171.72
1092.59	247.47
1115.69	172.60
1118.50	251.45
1141.88	173.69
1144.47	255.00
1168.07	175.00
1170.49	258.18
1194.24	176.48
1196.56	260.99
1220.41	178.07
1222.65	263.47

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-continued

Y	Z
1246.57	179.69
1248.78	265.62
1272.74	181.30
1274.93	267.46
1298.91	182.89
1301.10	269.01
1325.07	184.45
1327.29	270.28
1351.25	185.95
1353.48	271.26
1377.42	187.41
1379.69	271.96
1403.60	188.82
1405.90	272.37
1429.78	190.18
1432.11	272.52
1455.96	191.49
1458.33	272.39
1482.15	192.76
1484.54	272.06
1508.33	193.98
1510.75	271.53
1534.52	195.17
1536.96	270.80
1560.71	196.31
1563.16	269.88
1586.90	197.42
1589.35	268.79
1613.10	198.49
1615.53	267.53
1639.29	199.52
1641.71	266.10
1665.49	200.51
1667.88	264.52
1691.69	201.47
1694.04	262.83
1717.88	202.39
1720.19	261.02
1744.09	203.25
1746.34	259.09
1770.29	204.06
1772.47	257.09
1796.49	204.79
1798.60	254.96
1822.70	205.45
1824.72	252.75
1848.91	206.02
1850.84	250.49
1875.12	206.49
1876.95	248.17
1901.33	206.84
1903.06	245.75
1927.55	207.08
1929.15	243.22
1953.76	207.25
1955.23	240.58
1979.98	207.32
1981.30	237.83
2006.19	207.32
2007.37	234.99
2032.41	207.26
2033.42	232.08
2058.62	207.16
2059.46	229.08
2084.84	207.03
2085.49	225.95
2111.05	206.87
2111.50	222.65
2137.27	206.75
2137.48	219.15
2163.42	215.40
2163.48	206.59
2189.32	211.37
2189.70	206.37
2215.18	206.84
919.81	192.98
932.43	175.87
940.67	208.36

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-continued

Y	Z
958.47	172.92
964.97	218.14
984.65	171.58
990.03	225.84.

10 An aircraft, as set forth in claim 1, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 1680.00; and  
 wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1174.69	159.39
1186.20	146.97
1191.00	172.35
1207.26	145.97
1210.23	180.99
1228.35	146.21
1230.12	187.99
1249.42	147.01
1250.34	194.00
1270.48	148.21
1270.74	199.36
1291.27	204.16
1291.52	149.71
1311.92	208.50
1312.54	151.44
1332.64	212.42
1333.53	153.48
1353.43	215.98
1354.50	155.73
1374.27	219.23
1375.45	158.20
1395.15	222.16
1396.38	160.85
1416.08	224.82
1417.29	163.56
1437.03	227.21
1438.21	166.27
1458.01	229.36
1459.13	168.92
1479.02	231.27
1480.07	171.50
1500.05	232.93
1501.01	174.01
1521.09	234.37
1521.96	176.42
1542.15	235.55
1542.93	178.73
1563.22	236.47
1563.90	180.95
1584.30	237.16
1584.88	183.08
1605.39	237.59
1605.88	185.10
1626.47	237.90
1626.88	187.04
1647.57	238.06
1647.89	188.89
1668.66	238.07
1668.91	190.66
1689.75	237.94
1689.93	192.34
1710.84	237.70
1710.96	193.94
1731.93	237.33
1732.00	195.46
1753.01	236.84
1753.04	196.88
1774.09	198.22
1774.10	236.24

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-continued

Y	Z
1795.15	199.47
1795.18	235.55
1816.21	200.64
1816.25	234.75
1837.27	201.69
1837.33	233.86
1858.34	202.68
1858.40	232.96
1879.42	203.55
1879.46	231.89
1900.49	204.31
1900.52	230.75
1921.58	204.93
1921.58	229.56
1942.64	228.31
1942.66	205.40
1963.69	226.98
1963.75	205.74
1984.73	225.55
1984.84	205.93
2005.77	224.04
2005.93	206.00
2026.80	222.45
2027.02	205.96
2047.83	220.81
2048.12	205.78
2068.85	219.12
2069.20	205.47
2089.87	217.35
2090.29	205.06
2110.87	215.45
2111.38	204.54
2131.86	213.37
2132.46	203.93
2152.83	211.06
2153.54	203.31
2173.76	208.47
2174.62	202.61
2194.64	205.54
2195.70	201.79
2215.47	202.22.

11. An aircraft, as set forth in claim 1, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 2280.00; and  
 wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
1312.16	158.26
1322.08	147.42
1326.23	169.65
1340.37	146.64
1342.83	177.36
1358.69	146.95
1360.03	183.68
1376.99	147.74
1377.51	189.13
1395.16	194.03
1395.27	148.86
1412.94	198.44
1413.54	150.24
1430.81	202.45
1431.79	151.80
1448.76	206.11
1450.02	153.58
1466.77	209.45
1468.23	155.54
1484.83	212.52
1486.43	157.64
1502.94	215.32

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Y	Z
1504.61	159.87
1521.07	217.88
1522.79	162.13
1539.24	220.21
1540.97	164.39
1557.44	222.32
1559.15	166.62
1575.66	224.23
1577.34	168.81
1593.90	225.93
1595.53	170.96
1612.15	227.43
1613.73	173.06
1630.43	228.71
1631.93	175.12
1648.71	229.76
1650.14	177.12
1667.01	230.62
1668.35	179.07
1685.32	231.24
1686.57	180.97
1703.63	231.76
1704.79	182.83
1721.94	232.15
1723.02	184.63
1740.26	232.42
1741.26	186.40
1758.58	232.57
1759.49	188.12
1776.89	232.60
1777.73	189.80
1795.21	232.54
1795.98	191.43
1813.53	232.37
1814.23	193.01
1831.85	232.10
1832.48	194.55
1850.16	231.75
1850.74	196.04
1868.47	231.32
1869.00	197.49
1886.78	230.80
1887.26	198.89
1905.09	230.27
1905.53	200.24
1923.40	229.59
1923.81	201.53
1941.70	228.86
1942.08	202.72
1960.01	228.08
1960.37	203.78
1978.30	227.25
1978.67	204.70
1996.60	226.34
1996.97	205.50
2014.89	225.36
2015.27	206.18
2033.18	224.30
2033.58	206.76
2051.46	223.17
2051.89	207.23
2069.74	222.00
2070.21	207.58
2088.02	220.78
2088.52	207.82
2106.29	219.50
2106.84	207.96
2124.56	218.11
2125.16	208.00
2142.81	216.56
2143.48	207.95
2161.05	214.81
2161.80	207.84
2179.25	212.80
2180.11	207.58
2197.43	210.51
2198.43	207.21
2215.56	207.88.



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Y	Z
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12. An aircraft, as set forth in claim 1, wherein the upper and lower surfaces are defined at an X position along the X axis corresponding substantially to 3120.00; and wherein the upper and lower surfaces are defined at Y and Z positions along the respective Y and Z axes, corresponding substantially to the following table:

Y	Z
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2068.13	86.96
2068.78	85.27
2070.95	87.90
2071.70	84.73
2073.85	88.54
2074.67	84.58
2076.79	89.06
2077.64	84.55
2079.73	89.50
2080.62	84.57
2082.68	89.89
2083.59	84.61
2085.64	90.23
2086.57	84.67
2088.60	90.53
2089.54	84.74
2091.56	90.80
2092.52	84.82
2094.53	91.05
2095.49	84.91
2097.50	91.27
2098.47	85.00
2100.47	91.47
2101.44	85.09
2103.44	91.65
2104.42	85.18
2106.41	91.81
2107.39	85.28
2109.38	91.96
2110.37	85.37
2112.35	92.09
2113.34	85.47
2115.33	92.20
2116.31	85.56
2118.30	92.30
2119.29	85.66
2121.28	92.38
2122.26	85.75
2124.25	92.45
2125.24	85.84
2127.23	92.51
2128.21	85.94
2130.21	92.55
2131.19	86.02
2133.18	92.58
2134.16	86.11
2136.16	92.60
2137.13	86.20
2139.14	92.60
2140.11	86.28
2142.11	92.60
2143.08	86.36
2145.09	92.58
2146.06	86.43
2148.06	92.55
2149.03	86.51
2151.04	92.51
2152.01	86.57
2154.02	92.46
2154.98	86.64
2156.99	92.40
2157.96	86.70
2159.97	92.33

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-continued

Y	Z
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2160.93	86.76
2162.94	92.25
2163.91	86.81
2165.92	92.16
2166.88	86.86
2168.89	92.05
2169.86	86.90
2171.87	91.94
2172.83	86.95
2174.84	91.82
2175.81	86.99
2177.81	91.69
2178.79	87.04
2180.79	91.54
2181.76	87.10
2183.76	91.38
2184.74	87.16
2186.73	91.20
2187.71	87.22
2189.70	91.02
2190.69	87.29
2192.67	90.82
2193.66	87.36
2195.64	90.61
2196.64	87.44
2198.60	90.39
2199.61	87.53
2201.57	90.15
2202.59	87.62
2204.54	89.90
2205.56	87.72
2207.50	89.65
2208.54	87.82
2210.46	89.38
2211.51	87.93
2213.43	89.09
2214.48	88.04

13. An aircraft, as set forth in claim 1, wherein at least one stabilizer bar operatively interconnects the fuselage and the rear stabilizer at an angle substantially equal to 16.4 degrees, relative to a plane proximate a bottom of the fuselage.

14. An aircraft, as set forth in claim 13, wherein the at least one stabilizer bar includes a stabilizer hinge such that the rear stabilizer is foldable about the hinge, relative to the fuselage.

15. An aircraft, as set forth in claim 14, wherein each of the wings includes a wing hinge such that each of the wings are foldable about the respective wing hinge, relative to the fuselage.

16. An aircraft, as set forth in claim 15, wherein each of the wing hinges extends along a hinge axis substantially equal to 23.5 degrees, relative to a centerline of the fuselage.

17. An aircraft, as set forth in claim 1, wherein each of the wings and the rear stabilizer are foldable relative to the fuselage to a foldable position.

18. An aircraft configured for flight in an atmosphere having low density, the aircraft comprising:

- a fuselage;
- a pair of wings extending from the fuselage in opposition to one another;
- a rear stabilizer extending from the fuselage in spaced relationship to the pair of wings;
- a stabilizer bar operatively interconnecting the rear stabilizer and the fuselage;
- wherein each of the fuselage, the pair of wings, and the rear stabilizer present an upper surface opposing a lower surface;
- wherein the upper and lower surfaces are defined at an X position along an X axis, in a 3-dimensional X, Y, Z configuration; and

wherein the upper and lower surfaces are defined at Y and Z positions along a respective Y and Z axis, corresponding substantially to the following table:

Y	Z
1005.68	117.26
1037.25	437.34
1049.79	117.67
1081.35	438.41
1093.90	118.26
1125.46	438.83
1138.00	119.03
1169.57	438.60
1182.11	119.96
1213.67	437.72
1226.20	121.01
1257.75	436.19
1270.30	122.11
1301.81	434.01
1314.40	123.20
1345.83	431.19
1358.50	124.30
1389.81	427.74
1402.59	125.48
1433.73	423.67
1446.68	126.77
1477.59	419.01
1490.77	128.22
1521.39	413.76
1534.85	129.87
1565.12	407.93
1578.92	131.74
1608.77	401.56
1622.98	133.88
1652.34	394.68
1667.02	136.33
1695.83	387.34
1711.05	139.13
1739.27	379.66
1755.04	142.31
1782.65	371.68
1799.01	145.91
1825.98	363.42
1842.93	149.98
1869.25	354.84
1886.80	154.56
1912.45	345.90
191.27	193.72
1930.61	159.67
1955.57	336.63
195.79	236.57
1974.36	165.31
1998.63	327.04
2018.04	171.45
2041.63	317.21
2061.66	178.05
2084.61	307.28
2105.22	185.01
2127.58	297.33
2148.72	192.28
2170.47	287.02
217.43	159.25
2192.19	199.79
2213.16	275.91
2235.63	207.48
223.69	270.30
2255.58	263.80
2279.04	215.29
2297.80	251.03
2321.20	224.19
257.36	140.96
260.67	294.21
300.44	131.64
300.83	312.40
342.35	327.29
344.24	126.54
3744.64	668.04
3758.76	679.04

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Y	Z
3765.49	654.10
3778.09	682.59
3784.17	650.65
3797.57	685.21
3803.05	648.55
3817.10	687.46
3822.01	647.30
3836.67	689.38
3840.99	646.64
384.41	340.58
3856.25	691.10
3859.99	646.44
3875.86	692.61
3878.99	646.57
388.22	123.63
3895.47	694.00
3897.98	647.01
3915.08	695.32
3916.97	647.73
3934.71	696.47
3935.94	648.72
3954.35	697.51
3954.91	649.85
3973.87	651.12
3973.98	698.57
3992.81	652.63
3993.61	699.65
4011.73	654.36
4013.25	700.76
4030.63	656.29
4032.88	701.89
4049.51	658.39
4052.51	703.04
4068.38	660.63
4072.14	704.20
4087.23	662.99
4091.77	705.37
4106.07	665.47
4111.39	706.53
4124.89	668.04
4131.02	707.69
4143.70	670.71
4150.65	708.86
4162.50	673.48
4166.85	699.98
4181.28	676.32
4181.67	687.05
4198.83	681.03
4200.06	679.25
4218.82	682.24
426.85	352.58
432.29	121.80
469.58	363.51
476.39	120.56
512.54	373.55
520.48	119.50
555.68	382.76
564.59	118.60
598.98	391.18
608.69	117.90
642.42	398.84
652.80	117.40
685.98	405.76
696.91	117.05
729.65	411.98
741.02	116.83
773.41	417.53
785.13	116.70
817.25	422.43
829.24	116.66
861.15	426.68
873.35	116.71
905.12	430.30
917.46	116.82
949.13	433.28
961.57	117.00
993.17	435.63

19. An aircraft configured for moving from a folded position to an unfolded position for flight in an atmosphere having low density, the aircraft comprising:

- a fuselage;
- a pair of wings extending from the fuselage in opposition to one another;
- a rear stabilizer extending from the fuselage in spaced relationship to the pair of wings;
- wherein each of the pair of wings and the rear stabilizer is foldable relative to the fuselage along a respective fold line;
- wherein each of the fuselage, the pair of wings, and the rear stabilizer present an upper surface opposing a lower surface;
- wherein the upper and lower surfaces are defined at an X position along an X axis, in a 3-dimensional X, Y, Z configuration; and
- wherein the upper and lower surfaces are defined at Y and Z positions along a respective Y and Z axis, corresponding substantially to the following table:

Y	Z
1005.68	117.26
1037.25	437.34
1049.79	117.67
1081.35	438.41
1093.90	118.26
1125.46	438.83
1138.00	119.03
1169.57	438.60
1182.11	119.96
1213.67	437.72
1226.20	121.01
1257.75	436.19
1270.30	122.11
1301.81	434.01
1314.40	123.20
1345.83	431.19
1358.50	124.30
1389.81	427.74
1402.59	125.48
1433.73	423.67
1446.68	126.77
1477.59	419.01
1490.77	128.22
1521.39	413.76
1534.85	129.87
1565.12	407.93
1578.92	131.74
1608.77	401.56
1622.98	133.88
1652.34	394.68
1667.02	136.33
1695.83	387.34
1711.05	139.13
1739.27	379.66
1755.04	142.31
1782.65	371.68
1799.01	145.91
1825.98	363.42
1842.93	149.98
1869.25	354.84
1886.80	154.56
1912.45	345.90
191.27	193.72
1930.61	159.67
1955.57	336.63
195.79	236.57
1974.36	165.31
1998.63	327.04
2018.04	171.45
2041.63	317.21
2061.66	178.05
2084.61	307.28

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Y	Z
2105.22	185.01
2127.58	297.33
2148.72	192.28
2170.47	287.02
217.43	159.25
2192.19	199.79
2213.16	275.91
2235.63	207.48
223.69	270.30
2255.58	263.80
2279.04	215.29
2297.80	251.03
2321.20	224.19
257.36	140.96
260.67	294.21
300.44	131.64
300.83	312.40
342.35	327.29
344.24	126.54
3744.64	668.04
3758.76	679.04
3765.49	654.10
3778.09	682.59
3784.17	650.65
3797.57	685.21
3803.05	648.55
3817.10	687.46
3822.01	647.30
3836.67	689.38
3840.99	646.64
384.41	340.58
3856.25	691.10
3859.99	646.44
3875.86	692.61
3878.99	646.57
388.22	123.63
3895.47	694.00
3897.98	647.01
3915.08	695.32
3916.97	647.73
3934.71	696.47
3935.94	648.72
3954.35	697.51
3954.91	649.85
3973.87	651.12
3973.98	698.57
3992.81	652.63
3993.61	699.65
4011.73	654.36
4013.25	700.76
4030.63	656.29
4032.88	701.89
4049.51	658.39
4052.51	703.04
4068.38	660.63
4072.14	704.20
4087.23	662.99
4091.77	705.37
4106.07	665.47
4111.39	706.53
4124.89	668.04
4131.02	707.69
4143.70	670.71
4150.65	708.86
4162.50	673.48
4166.85	699.98
4181.28	676.32
4181.67	687.05
4198.83	681.03
4200.06	679.25
4218.82	682.24
426.85	352.58
432.29	121.80
469.58	363.51
476.39	120.56
512.54	373.55
520.48	119.50
555.68	382.76

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Y	Z
564.59	118.60
598.98	391.18
608.69	117.90
642.42	398.84
652.80	117.40
685.98	405.76
696.91	117.05
729.65	411.98
741.02	116.83
773.41	417.53
785.13	116.70

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-continued

Y	Z
817.25	422.43
829.24	116.66
861.15	426.68
873.35	116.71
905.12	430.30
917.46	116.82
949.13	433.28
961.57	117.00
993.17	435.63

5

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