Approved by OMB 3060-0678
Estimated Burden: up to 80 hours
April 2016

Federal Communications Commission

312 File Number: **SATLOA2016111500118**

Filing Description

Question	Response
Description	SpaceX Ku/Ka NGSO Constellation

Satellite Information

Question	Response
Select Orbit Type	NGSO
Space Station or Satellite Network Name	SpaceX Constellation
Estimated Lifetime of Satellite(s) From Date of Launch	5 Years
Will the space station(s) operate on a Common Carrier basis?	No

Operating Frequency Bands (16)

Nature of service	Description	Frequency Band(s)	Mode Type
Fixed-Satellite Service		28100.0 MHz -28600.0 MHz	Receive
Fixed-Satellite Service		10700.0 MHz -10950.0 MHz	Transmit
Fixed-Satellite Service		10950.0 MHz -11200.0 MHz	Transmit
Fixed-Satellite Service		11200.0 MHz -11450.0 MHz	Transmit
Fixed-Satellite Service		11450.0 MHz -11700.0 MHz	Transmit
Fixed-Satellite Service		11700.0 MHz -12200.0 MHz	Transmit
Fixed-Satellite Service		12200.0 MHz -12750.0 MHz	Transmit
Fixed-Satellite Service		14000.0 MHz -14500.0 MHz	Receive
Fixed-Satellite Service		17800.0 MHz -18300.0 MHz	Transmit
Fixed-Satellite Service		18300.0 MHz -18600.0 MHz	Transmit
Fixed-Satellite Service		18800.0 MHz -19300.0 MHz	Transmit
Fixed-Satellite Service		27500.0 MHz -28100.0 MHz	Receive
Fixed-Satellite Service		28600.0 MHz -29100.0 MHz	Receive
Fixed-Satellite Service		29500.0 MHz -30000.0 MHz	Receive
Fixed-Satellite Service		12150.0 MHz -12250.0 MHz	Transmit
Fixed-Satellite Service		13850.0 MHz -14000.0 MHz	Receive

Orbital Information For Non-Geostationary Satellites

Question	Response
Total Number of Satellites in the active constellation	4425
Orbit Epoch Date	01/01/2015
Celestrial Reference Body	Earth

Orbital Plane 1:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	72.0
2	79.2
3	86.4
4	93.6
5	100.8
6	108.0
7	115.2
8	122.4
9	129.6
10	136.8
11	144.0
12	151.2
13	158.4

14	295.2
15	288.0
16	280.8
17	273.6
18	266.4
19	259.2
20	252.0
21	244.8
22	237.6
23	230.4
24	223.2
25	216.0
26	208.8
27	201.6
28	194.4
29	187.2
30	180.0
31	172.8
32	165.6
33	0.0
34	7.2
35	14.4
36	21.6
37	28.8
38	36.0
39	43.2

40	50.4
41	57.6
42	64.8
43	316.8
44	324.0
45	331.2
46	338.4
47	345.6
48	352.8
49	302.4
50	309.6

Orbital Plane 2:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	11.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	1.9

2	9.1
3	16.3
4	23.5
5	30.7
6	37.9
7	45.1
8	52.3
9	59.5
10	66.7
11	73.9
12	81.1
13	88.3
14	95.5
15	102.7
16	109.9
17	117.1
18	124.3
19	131.5
20	138.7
21	145.9
22	153.1
23	160.3
24	167.5
25	174.7
26	181.9
27	189.1

28	196.3
29	203.5
30	210.7
31	217.9
32	225.1
33	232.3
34	239.5
35	246.7
36	253.9
37	261.1
38	268.3
39	275.5
40	282.7
41	289.9
42	297.1
43	304.3
44	311.5
45	318.7
46	325.9
47	333.1
48	340.3
49	354.7
50	347.5

Orbital Plane 3:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	22.5 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	32.6
2	39.8
3	47.0
4	54.2
5	61.4
6	68.6
7	75.8
8	83.0
9	90.2
10	97.4
11	104.6
12	111.8
13	119.0
14	126.2
15	133.4
16	140.6

17	147.8
18	155.0
19	162.2
20	169.4
21	176.6
22	183.8
23	191.0
24	198.2
25	205.4
26	212.6
27	219.8
28	227.0
29	234.2
30	241.4
31	248.6
32	255.8
33	263.0
34	270.2
35	277.4
36	284.6
37	291.8
38	299.0
39	306.2
40	313.4
41	356.6
42	349.4

43	342.2
44	335.0
45	327.8
46	320.6
47	25.4
48	18.2
49	11.0
50	3.8

Orbital Plane 4:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	33.8 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	358.5
2	351.3
3	344.1
4	336.9

5	329.7
6	322.5
7	315.3
8	308.1
9	300.9
10	293.7
11	286.5
12	279.3
13	272.1
14	264.9
15	257.7
16	250.5
17	243.3
18	236.1
19	228.9
20	221.7
21	214.5
22	207.3
23	200.1
24	192.9
25	185.7
26	178.5
27	171.3
28	164.1
29	156.9
30	149.7

31	142.5
32	135.3
33	128.1
34	120.9
35	113.7
36	106.5
37	99.3
38	92.1
39	84.9
40	77.7
41	70.5
42	63.3
43	56.1
44	48.9
45	41.7
46	34.5
47	27.3
48	20.1
49	12.9
50	5.7

Orbital Plane 5:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	45.0 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	65.3
2	72.5
3	79.7
4	86.9
5	94.1
6	101.3
7	108.5
8	115.7
9	122.9
10	130.1
11	137.3
12	144.5
13	151.7
14	158.9
15	166.1
16	173.3
17	180.5
18	187.7
19	194.9

20	202.1
21	245.3
22	252.5
23	259.7
24	266.9
25	274.1
26	346.1
27	338.9
28	331.7
29	324.5
30	317.3
31	310.1
32	302.9
33	295.7
34	288.5
35	281.3
36	238.1
37	230.9
38	223.7
39	216.5
40	209.3
41	22.1
42	29.3
43	36.5
44	43.7
45	50.9

46	58.1
47	0.5
48	353.3
49	14.9
50	7.7

Orbital Plane 6:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	56.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	124.8
2	117.6
3	110.4
4	103.2
5	96.0
6	88.8
7	81.6

8	74.4
9	67.2
10	60.0
11	52.8
12	204.0
13	196.8
14	189.6
15	182.4
16	175.2
17	168.0
18	160.8
19	153.6
20	146.4
21	139.2
22	132.0
23	45.6
24	38.4
25	31.2
26	24.0
27	16.8
28	283.2
29	290.4
30	297.6
31	304.8
32	312.0
33	319.2

34	326.4
35	333.6
36	340.8
37	348.0
38	2.4
39	355.2
40	225.6
41	232.8
42	240.0
43	247.2
44	254.4
45	261.6
46	268.8
47	276.0
48	9.6
49	211.2
50	218.4

Orbital Plane 7:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	67.5 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	4.3
2	357.1
3	349.9
4	342.7
5	335.5
6	328.3
7	321.1
8	313.9
9	306.7
10	299.5
11	292.3
12	285.1
13	277.9
14	270.7
15	263.5
16	256.3
17	249.1
18	241.9
19	234.7
20	227.5
21	220.3

22	213.1
23	205.9
24	198.7
25	191.5
26	184.3
27	177.1
28	169.9
29	162.7
30	155.5
31	148.3
32	141.1
33	133.9
34	126.7
35	119.5
36	112.3
37	105.1
38	97.9
39	90.7
40	83.5
41	76.3
42	69.1
43	61.9
44	54.7
45	47.5
46	40.3
47	33.1

48	25.9
49	18.7
50	11.5

Orbital Plane 8:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	78.8 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	6.2
2	359.0
3	351.8
4	344.6
5	337.4
6	330.2
7	323.0
8	315.8
9	308.6

10	301.4
11	294.2
12	287.0
13	279.8
14	272.6
15	265.4
16	258.2
17	251.0
18	243.8
19	236.6
20	229.4
21	222.2
22	215.0
23	207.8
24	200.6
25	193.4
26	186.2
27	179.0
28	171.8
29	164.6
30	157.4
31	150.2
32	143.0
33	135.8
34	128.6
35	121.4

36	114.2
37	107.0
38	99.8
39	92.6
40	85.4
41	78.2
42	71.0
43	63.8
44	56.6
45	49.4
46	42.2
47	35.0
48	27.8
49	20.6
50	13.4

Orbital Plane 9:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	90.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	8.1
2	0.9
3	353.7
4	346.5
5	339.3
6	332.1
7	324.9
8	317.7
9	310.5
10	303.3
11	296.1
12	288.9
13	281.7
14	274.5
15	267.3
16	260.1
17	252.9
18	245.7
19	238.5
20	231.3
21	224.1
22	216.9
23	209.7
24	202.5

25	195.3
26	188.1
27	180.9
28	173.7
29	166.5
30	159.3
31	152.1
32	144.9
33	137.7
34	130.5
35	123.3
36	116.1
37	108.9
38	101.7
39	94.5
40	87.3
41	80.1
42	72.9
43	65.7
44	58.5
45	51.3
46	44.1
47	36.9
48	29.7
49	22.5
50	15.3

Orbital Plane 10:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	101.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	17.2
2	24.4
3	31.6
4	139.6
5	146.8
6	154.0
7	161.2
8	168.4
9	175.6
10	182.8
11	190.0
12	197.2
13	204.4

14	211.6
15	218.8
16	226.0
17	233.2
18	240.4
19	247.6
20	254.8
21	262.0
22	269.2
23	276.4
24	283.6
25	290.8
26	298.0
27	305.2
28	312.4
29	319.6
30	326.8
31	334.0
32	341.2
33	348.4
34	355.6
35	2.8
36	10.0
37	132.4
38	125.2
39	118.0

40	110.8
41	103.6
42	96.4
43	89.2
44	82.0
45	74.8
46	67.6
47	60.4
48	53.2
49	46.0
50	38.8

Orbital Plane 11:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	112.5 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	11.9

2	4.7
3	357.5
4	350.3
5	343.1
6	335.9
7	328.7
8	321.5
9	314.3
10	307.1
11	299.9
12	292.7
13	285.5
14	278.3
15	271.1
16	263.9
17	256.7
18	249.5
19	242.3
20	235.1
21	227.9
22	220.7
23	213.5
24	206.3
25	199.1
26	191.9
27	184.7

28	177.5
29	170.3
30	163.1
31	155.9
32	148.7
33	141.5
34	134.3
35	127.1
36	119.9
37	112.7
38	105.5
39	98.3
40	91.1
41	83.9
42	76.7
43	69.5
44	62.3
45	55.1
46	47.9
47	40.7
48	33.5
49	26.3
50	19.1

Orbital Plane 12:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	123.8 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	13.8
2	6.6
3	359.4
4	352.2
5	345.0
6	337.8
7	330.6
8	323.4
9	316.2
10	309.0
11	301.8
12	294.6
13	287.4
14	280.2
15	273.0
16	265.8

17	258.6
18	251.4
19	244.2
20	237.0
21	229.8
22	222.6
23	215.4
24	208.2
25	201.0
26	193.8
27	186.6
28	179.4
29	172.2
30	165.0
31	157.8
32	150.6
33	143.4
34	136.2
35	129.0
36	121.8
37	114.6
38	107.4
39	100.2
40	93.0
41	85.8
42	78.6

43	71.4
44	64.2
45	57.0
46	49.8
47	42.6
48	35.4
49	28.2
50	21.0

Orbital Plane 13:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	135.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	23.0
2	30.2
3	37.4
4	44.6

5	51.8
6	59.0
7	66.2
8	73.4
9	80.6
10	87.8
11	95.0
12	102.2
13	109.4
14	116.6
15	123.8
16	131.0
17	138.2
18	145.4
19	152.6
20	159.8
21	167.0
22	174.2
23	181.4
24	188.6
25	195.8
26	203.0
27	210.2
28	217.4
29	224.6
30	231.8

31	239.0
32	246.2
33	253.4
34	260.6
35	267.8
36	275.0
37	282.2
38	289.4
39	296.6
40	303.8
41	311.0
42	318.2
43	325.4
44	332.6
45	339.8
46	347.0
47	354.2
48	1.4
49	8.6
50	15.8

Orbital Plane 14:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	146.3 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	204.9
2	212.1
3	219.3
4	226.5
5	233.7
6	240.9
7	248.1
8	255.3
9	262.5
10	269.7
11	276.9
12	284.1
13	291.3
14	298.5
15	305.7
16	312.9
17	320.1
18	327.3
19	334.5

20	341.7
21	348.9
22	356.1
23	3.3
24	10.5
25	17.7
26	197.7
27	190.5
28	183.3
29	176.1
30	168.9
31	161.7
32	154.5
33	147.3
34	140.1
35	132.9
36	125.7
37	118.5
38	111.3
39	104.1
40	96.9
41	89.7
42	82.5
43	75.3
44	68.1
45	60.9

46	53.7
47	46.5
48	39.3
49	32.1
50	24.9

Orbital Plane 15:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	157.5 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	19.6
2	12.4
3	5.2
4	358.0
5	350.8
6	343.6
7	336.4

8	329.2
9	322.0
10	314.8
11	307.6
12	300.4
13	293.2
14	286.0
15	278.8
16	271.6
17	264.4
18	257.2
19	250.0
20	242.8
21	235.6
22	228.4
23	221.2
24	214.0
25	206.8
26	199.6
27	192.4
28	185.2
29	178.0
30	170.8
31	163.6
32	156.4
33	149.2

34	142.0
35	134.8
36	127.6
37	120.4
38	113.2
39	106.0
40	98.8
41	91.6
42	84.4
43	77.2
44	70.0
45	62.8
46	55.6
47	48.4
48	41.2
49	34.0
50	26.8

Orbital Plane 16:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	168.8 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	21.5
2	14.3
3	7.1
4	359.9
5	352.7
6	345.5
7	338.3
8	331.1
9	323.9
10	316.7
11	309.5
12	302.3
13	295.1
14	287.9
15	280.7
16	273.5
17	266.3
18	259.1
19	251.9
20	244.7
21	237.5

22	230.3
23	223.1
24	215.9
25	208.7
26	201.5
27	194.3
28	187.1
29	179.9
30	172.7
31	165.5
32	158.3
33	151.1
34	143.9
35	136.7
36	129.5
37	122.3
38	115.1
39	107.9
40	100.7
41	93.5
42	86.3
43	79.1
44	71.9
45	64.7
46	57.5
47	50.3

48	43.1
49	35.9
50	28.7

Orbital Plane 17:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	180.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	23.4
2	16.2
3	9.0
4	1.8
5	354.6
6	347.4
7	340.2
8	333.0
9	325.8

10	318.6
11	311.4
12	304.2
13	297.0
14	289.8
15	282.6
16	275.4
17	268.2
18	261.0
19	253.8
20	246.6
21	239.4
22	232.2
23	225.0
24	217.8
25	210.6
26	203.4
27	196.2
28	189.0
29	181.8
30	174.6
31	167.4
32	160.2
33	153.0
34	145.8
35	138.6

36	131.4
37	124.2
38	117.0
39	109.8
40	102.6
41	95.4
42	88.2
43	81.0
44	73.8
45	66.6
46	59.4
47	52.2
48	45.0
49	37.8
50	30.6

Orbital Plane 18:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	191.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	32.5
2	39.7
3	46.9
4	54.1
5	61.3
6	68.5
7	75.7
8	82.9
9	90.1
10	97.3
11	104.5
12	111.7
13	118.9
14	126.1
15	133.3
16	140.5
17	147.7
18	154.9
19	162.1
20	169.3
21	176.5
22	183.7
23	190.9
24	198.1

25	205.3
26	212.5
27	219.7
28	226.9
29	234.1
30	241.3
31	248.5
32	255.7
33	262.9
34	270.1
35	277.3
36	284.5
37	291.7
38	298.9
39	306.1
40	313.3
41	320.5
42	327.7
43	334.9
44	25.3
45	18.1
46	10.9
47	3.7
48	356.5
49	349.3
50	342.1

Orbital Plane 19:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	202.5 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	27.2
2	20.0
3	12.8
4	5.6
5	358.4
6	351.2
7	344.0
8	336.8
9	329.6
10	322.4
11	315.2
12	308.0
13	300.8

14	293.6
15	286.4
16	279.2
17	272.0
18	264.8
19	257.6
20	250.4
21	243.2
22	236.0
23	228.8
24	221.6
25	214.4
26	207.2
27	200.0
28	192.8
29	185.6
30	178.4
31	171.2
32	164.0
33	156.8
34	149.6
35	142.4
36	135.2
37	128.0
38	120.8
39	113.6

40	106.4
41	99.2
42	92.0
43	84.8
44	77.6
45	70.4
46	63.2
47	56.0
48	48.8
49	41.6
50	34.4

Orbital Plane 20:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	213.8 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	29.1

2	21.9
3	14.7
4	7.5
5	0.3
6	353.1
7	345.9
8	338.7
9	331.5
10	324.3
11	317.1
12	309.9
13	302.7
14	295.5
15	288.3
16	281.1
17	273.9
18	266.7
19	259.5
20	252.3
21	245.1
22	237.9
23	230.7
24	223.5
25	216.3
26	209.1
27	201.9

28	194.7
29	187.5
30	180.3
31	173.1
32	165.9
33	158.7
34	151.5
35	144.3
36	137.1
37	129.9
38	122.7
39	115.5
40	108.3
41	101.1
42	93.9
43	86.7
44	79.5
45	72.3
46	65.1
47	57.9
48	50.7
49	43.5
50	36.3

Orbital Plane 21:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	225.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	31.1
2	23.9
3	16.7
4	9.5
5	2.3
6	355.1
7	347.9
8	340.7
9	333.5
10	326.3
11	319.1
12	311.9
13	304.7
14	297.5
15	290.3
16	283.1

17	275.9
18	268.7
19	261.5
20	254.3
21	247.1
22	239.9
23	232.7
24	225.5
25	218.3
26	211.1
27	203.9
28	196.7
29	189.5
30	182.3
31	175.1
32	167.9
33	160.7
34	153.5
35	146.3
36	139.1
37	131.9
38	124.7
39	117.5
40	110.3
41	103.1
42	95.9

43	88.7
44	81.5
45	74.3
46	67.1
47	38.3
48	45.5
49	52.7
50	59.9

Orbital Plane 22:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	236.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	40.2
2	47.4
3	54.6
4	61.8

5	69.0
6	76.2
7	83.4
8	90.6
9	97.8
10	256.2
11	263.4
12	270.6
13	277.8
14	285.0
15	292.2
16	299.4
17	306.6
18	313.8
19	321.0
20	328.2
21	335.4
22	342.6
23	349.8
24	357.0
25	4.2
26	11.4
27	18.6
28	25.8
29	33.0
30	249.0

31	241.8
32	234.6
33	227.4
34	220.2
35	213.0
36	205.8
37	198.6
38	191.4
39	184.2
40	177.0
41	169.8
42	162.6
43	155.4
44	148.2
45	141.0
46	133.8
47	126.6
48	119.4
49	112.2
50	105.0

Orbital Plane 23:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	247.5 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	34.9
2	27.7
3	20.5
4	13.3
5	6.1
6	358.9
7	351.7
8	344.5
9	337.3
10	330.1
11	322.9
12	315.7
13	308.5
14	301.3
15	294.1
16	286.9
17	279.7
18	272.5
19	265.3

20	258.1
21	250.9
22	243.7
23	236.5
24	229.3
25	222.1
26	214.9
27	207.7
28	200.5
29	193.3
30	186.1
31	178.9
32	171.7
33	164.5
34	157.3
35	150.1
36	142.9
37	135.7
38	128.5
39	121.3
40	114.1
41	106.9
42	99.7
43	92.5
44	85.3
45	78.1

46	70.9
47	63.7
48	56.5
49	49.3
50	42.1

Orbital Plane 24:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	258.8 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	36.8
2	29.6
3	22.4
4	15.2
5	8.0
6	0.8
7	353.6

8	346.4
9	339.2
10	332.0
11	324.8
12	317.6
13	310.4
14	303.2
15	296.0
16	288.8
17	281.6
18	274.4
19	267.2
20	260.0
21	252.8
22	245.6
23	238.4
24	231.2
25	224.0
26	216.8
27	209.6
28	202.4
29	195.2
30	188.0
31	180.8
32	173.6
33	166.4

34	159.2
35	152.0
36	144.8
37	137.6
38	130.4
39	123.2
40	116.0
41	108.8
42	101.6
43	94.4
44	87.2
45	80.0
46	72.8
47	65.6
48	58.4
49	51.2
50	44.0

Orbital Plane 25:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	270.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	38.7
2	31.5
3	24.3
4	17.1
5	9.9
6	2.7
7	355.5
8	348.3
9	341.1
10	333.9
11	326.7
12	319.5
13	312.3
14	305.1
15	297.9
16	290.7
17	283.5
18	276.3
19	269.1
20	261.9
21	254.7

22	247.5
23	240.3
24	233.1
25	225.9
26	218.7
27	211.5
28	204.3
29	197.1
30	189.9
31	182.7
32	175.5
33	168.3
34	161.1
35	153.9
36	146.7
37	139.5
38	132.3
39	125.1
40	117.9
41	110.7
42	103.5
43	96.3
44	89.1
45	81.9
46	74.7
47	67.5

48	60.3
49	53.1
50	45.9

Orbital Plane 26:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	281.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	47.8
2	55.0
3	62.2
4	69.4
5	76.6
6	83.8
7	91.0
8	98.2
9	105.4

10	112.6
11	119.8
12	127.0
13	134.2
14	141.4
15	148.6
16	155.8
17	163.0
18	170.2
19	177.4
20	184.6
21	191.8
22	199.0
23	206.2
24	213.4
25	220.6
26	227.8
27	235.0
28	242.2
29	249.4
30	256.6
31	263.8
32	271.0
33	278.2
34	285.4
35	292.6

36	299.8
37	307.0
38	314.2
39	321.4
40	328.6
41	335.8
42	343.0
43	350.2
44	357.4
45	4.6
46	11.8
47	19.0
48	26.2
49	33.4
50	40.6

Orbital Plane 27:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	292.5 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	42.5
2	35.3
3	28.1
4	20.9
5	13.7
6	6.5
7	359.3
8	352.1
9	344.9
10	337.7
11	330.5
12	323.3
13	316.1
14	308.9
15	301.7
16	294.5
17	287.3
18	280.1
19	272.9
20	265.7
21	258.5
22	251.3
23	244.1
24	236.9

25	229.7
26	222.5
27	215.3
28	208.1
29	200.9
30	193.7
31	186.5
32	179.3
33	172.1
34	164.9
35	157.7
36	150.5
37	143.3
38	136.1
39	128.9
40	121.7
41	114.5
42	107.3
43	100.1
44	92.9
45	85.7
46	78.5
47	71.3
48	64.1
49	56.9
50	49.7

Orbital Plane 28:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	303.8 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	44.4
2	37.2
3	30.0
4	22.8
5	15.6
6	8.4
7	1.2
8	354.0
9	346.8
10	339.6
11	332.4
12	325.2
13	318.0

14	310.8
15	303.6
16	296.4
17	289.2
18	282.0
19	274.8
20	267.6
21	260.4
22	253.2
23	246.0
24	238.8
25	231.6
26	224.4
27	217.2
28	210.0
29	202.8
30	195.6
31	188.4
32	181.2
33	174.0
34	166.8
35	159.6
36	152.4
37	145.2
38	138.0
39	130.8

40	123.6
41	116.4
42	109.2
43	102.0
44	94.8
45	87.6
46	80.4
47	73.2
48	66.0
49	58.8
50	51.6

Orbital Plane 29:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	315.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	53.6

2	60.8
3	68.0
4	75.2
5	82.4
6	89.6
7	96.8
8	104.0
9	111.2
10	118.4
11	125.6
12	132.8
13	140.0
14	147.2
15	154.4
16	161.6
17	168.8
18	176.0
19	183.2
20	190.4
21	197.6
22	204.8
23	212.0
24	219.2
25	226.4
26	233.6
27	240.8

28	248.0
29	255.2
30	262.4
31	269.6
32	276.8
33	284.0
34	291.2
35	298.4
36	305.6
37	312.8
38	320.0
39	327.2
40	334.4
41	341.6
42	348.8
43	356.0
44	3.2
45	10.4
46	17.6
47	24.8
48	32.0
49	39.2
50	46.4

Orbital Plane 30:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	326.3 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	55.5
2	62.7
3	69.9
4	77.1
5	84.3
6	91.5
7	98.7
8	105.9
9	113.1
10	120.3
11	127.5
12	134.7
13	141.9
14	149.1
15	156.3
16	163.5

17	170.7
18	177.9
19	185.1
20	192.3
21	199.5
22	206.7
23	213.9
24	221.1
25	228.3
26	235.5
27	242.7
28	249.9
29	257.1
30	264.3
31	271.5
32	278.7
33	285.9
34	293.1
35	300.3
36	307.5
37	314.7
38	321.9
39	329.1
40	336.3
41	26.7
42	33.9

43	41.1
44	48.3
45	19.5
46	12.3
47	5.1
48	357.9
49	350.7
50	343.5

Orbital Plane 31:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	337.5 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	50.2
2	43.0
3	35.8
4	28.6

5	21.4
6	14.2
7	7.0
8	359.8
9	352.6
10	345.4
11	338.2
12	331.0
13	323.8
14	316.6
15	309.4
16	302.2
17	295.0
18	287.8
19	280.6
20	273.4
21	266.2
22	259.0
23	251.8
24	244.6
25	237.4
26	230.2
27	223.0
28	215.8
29	208.6
30	201.4

31	194.2
32	187.0
33	179.8
34	172.6
35	165.4
36	158.2
37	151.0
38	143.8
39	136.6
40	129.4
41	122.2
42	115.0
43	107.8
44	100.6
45	93.4
46	86.2
47	79.0
48	71.8
49	64.6
50	57.4

Orbital Plane 32:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.0 degrees
Right Ascension of Ascending Node	348.8 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6480.0 seconds
Apogee	1150.0 km
Perigee	1150.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	52.1
2	44.9
3	37.7
4	30.5
5	23.3
6	16.1
7	8.9
8	1.7
9	354.5
10	347.3
11	340.1
12	332.9
13	325.7
14	318.5
15	311.3
16	304.1
17	296.9
18	289.7
19	282.5

20	275.3
21	268.1
22	260.9
23	253.7
24	246.5
25	239.3
26	232.1
27	224.9
28	217.7
29	210.5
30	203.3
31	196.1
32	188.9
33	181.7
34	174.5
35	167.3
36	160.1
37	152.9
38	145.7
39	138.5
40	131.3
41	124.1
42	116.9
43	109.7
44	102.5
45	95.3

46	88.1
47	80.9
48	73.7
49	66.5
50	59.3

Orbital Plane 33:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	5.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	352.8
2	345.6
3	338.4
4	331.2
5	324.0
6	316.8
7	309.6

8	302.4
9	295.2
10	288.0
11	280.8
12	273.6
13	266.4
14	259.2
15	252.0
16	244.8
17	237.6
18	230.4
19	223.2
20	216.0
21	208.8
22	201.6
23	194.4
24	187.2
25	180.0
26	172.8
27	165.6
28	158.4
29	151.2
30	144.0
31	136.8
32	129.6
33	122.4

34	115.2
35	108.0
36	100.8
37	93.6
38	86.4
39	79.2
40	72.0
41	64.8
42	57.6
43	50.4
44	43.2
45	36.0
46	28.8
47	21.6
48	14.4
49	7.2
50	0.0

Orbital Plane 34:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	16.9 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	356.2
2	349.0
3	341.8
4	334.6
5	327.4
6	320.2
7	313.0
8	305.8
9	298.6
10	291.4
11	284.2
12	277.0
13	269.8
14	262.6
15	255.4
16	248.2
17	241.0
18	233.8
19	226.6
20	219.4
21	212.2

22	205.0
23	197.8
24	190.6
25	183.4
26	176.2
27	169.0
28	161.8
29	154.6
30	147.4
31	140.2
32	133.0
33	125.8
34	118.6
35	111.4
36	104.2
37	97.0
38	89.8
39	82.6
40	75.4
41	68.2
42	61.0
43	53.8
44	46.6
45	39.4
46	32.2
47	25.0

48	17.8
49	10.6
50	3.4

Orbital Plane 35:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	28.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	359.6
2	352.3
3	345.2
4	338.0
5	330.8
6	323.6
7	316.4
8	309.2
9	302.0

10	294.8
11	287.5
12	280.4
13	273.2
14	265.9
15	258.8
16	251.6
17	244.3
18	237.2
19	230.0
20	222.8
21	215.6
22	208.4
23	201.2
24	194.0
25	186.8
26	179.5
27	172.4
28	165.2
29	158.0
30	150.8
31	143.6
32	136.4
33	129.2
34	122.0
35	114.8

36	107.6
37	100.4
38	93.1
39	86.0
40	78.8
41	71.6
42	64.4
43	57.1
44	49.9
45	42.8
46	35.6
47	28.4
48	21.2
49	14.0
50	6.8

Orbital Plane 36:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	39.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	2.9
2	355.7
3	348.5
4	341.3
5	334.1
6	326.9
7	319.7
8	312.5
9	305.3
10	298.1
11	290.9
12	283.7
13	276.5
14	269.3
15	262.1
16	254.9
17	247.7
18	240.5
19	233.3
20	226.1
21	218.9
22	211.7
23	204.5
24	197.3

25	190.1
26	182.9
27	175.7
28	168.5
29	161.3
30	154.1
31	146.9
32	139.7
33	132.5
34	125.3
35	118.1
36	110.9
37	103.7
38	96.5
39	89.3
40	82.1
41	74.9
42	67.7
43	60.5
44	53.3
45	46.1
46	38.9
47	31.7
48	24.5
49	17.3
50	10.1

Orbital Plane 37:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	50.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	6.3
2	359.1
3	351.9
4	344.7
5	337.5
6	330.3
7	323.1
8	315.9
9	308.7
10	301.5
11	294.3
12	287.1
13	279.9

14	272.7
15	265.5
16	258.3
17	251.1
18	243.9
19	236.7
20	229.5
21	222.3
22	215.1
23	207.9
24	200.7
25	193.5
26	186.3
27	179.1
28	171.9
29	164.7
30	157.5
31	150.3
32	143.1
33	135.9
34	128.7
35	121.5
36	114.3
37	107.1
38	99.9
39	92.7

40	85.5
41	78.3
42	71.1
43	63.9
44	56.7
45	49.5
46	42.3
47	35.1
48	27.9
49	20.7
50	13.5

Orbital Plane 38:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	61.9 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	9.7

2	2.5
3	355.3
4	348.1
5	340.9
6	333.7
7	326.5
8	319.3
9	312.1
10	304.9
11	297.7
12	290.5
13	283.3
14	276.1
15	268.9
16	261.7
17	254.5
18	247.3
19	240.1
20	232.9
21	225.7
22	218.5
23	211.3
24	204.1
25	196.9
26	189.7
27	182.5

28	175.3
29	168.1
30	160.9
31	153.7
32	146.5
33	139.3
34	132.1
35	124.9
36	117.7
37	110.5
38	103.3
39	96.1
40	88.9
41	81.7
42	74.5
43	67.3
44	60.1
45	52.9
46	45.7
47	38.5
48	31.3
49	24.1
50	16.9

Orbital Plane 39:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	73.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	13.1
2	5.8
3	358.7
4	351.5
5	344.2
6	337.1
7	329.8
8	322.6
9	315.5
10	308.2
11	301.0
12	293.9
13	286.6
14	279.4
15	272.2
16	265.0

17	257.8
18	250.7
19	243.4
20	236.3
21	229.0
22	221.8
23	214.7
24	207.4
25	200.2
26	193.0
27	185.9
28	178.7
29	171.4
30	164.2
31	157.1
32	149.8
33	142.6
34	135.5
35	128.2
36	121.0
37	113.8
38	106.6
39	99.4
40	92.2
41	85.0
42	77.9

43	70.6
44	63.4
45	56.2
46	49.1
47	41.9
48	34.7
49	27.4
50	20.3

Orbital Plane 40:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	84.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	16.4
2	9.2
3	2.0
4	354.8

5	347.6
6	340.4
7	333.2
8	326.0
9	318.8
10	311.6
11	304.4
12	297.2
13	290.0
14	282.8
15	275.6
16	268.4
17	261.2
18	254.0
19	246.8
20	239.6
21	232.4
22	225.2
23	218.0
24	210.8
25	203.6
26	196.4
27	189.2
28	182.0
29	174.8
30	167.6

31	160.4
32	153.2
33	146.0
34	138.8
35	131.6
36	124.4
37	117.2
38	110.0
39	102.8
40	95.6
41	88.4
42	81.2
43	74.0
44	66.8
45	59.6
46	52.4
47	45.2
48	38.0
49	30.8
50	23.6

Orbital Plane 41:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	95.6 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	19.8
2	12.6
3	5.4
4	358.2
5	351.0
6	343.8
7	336.6
8	329.4
9	322.2
10	315.0
11	307.8
12	300.6
13	293.4
14	286.2
15	279.0
16	271.8
17	264.6
18	257.4
19	250.2

20	243.0
21	235.8
22	228.6
23	221.4
24	214.2
25	207.0
26	199.8
27	192.6
28	185.4
29	178.2
30	171.0
31	163.8
32	156.6
33	149.4
34	142.2
35	135.0
36	127.8
37	120.6
38	113.4
39	106.2
40	99.0
41	91.8
42	84.6
43	77.4
44	70.2
45	63.0

46	55.8
47	48.6
48	41.4
49	34.2
50	27.0

Orbital Plane 42:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	106.9 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	23.2
2	16.0
3	8.8
4	1.6
5	354.4
6	347.2
7	340.0

8	332.8
9	325.6
10	318.4
11	311.2
12	304.0
13	296.8
14	289.6
15	282.4
16	275.2
17	268.0
18	260.8
19	253.6
20	246.4
21	239.2
22	232.0
23	224.8
24	217.6
25	210.4
26	203.2
27	196.0
28	188.8
29	181.6
30	174.4
31	167.2
32	160.0
33	152.8

34	145.6
35	138.4
36	131.2
37	124.0
38	116.8
39	109.6
40	102.4
41	95.2
42	88.0
43	80.8
44	73.6
45	66.4
46	59.2
47	52.0
48	44.8
49	37.6
50	30.4

Orbital Plane 43:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	118.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	26.6
2	19.4
3	12.1
4	4.9
5	357.8
6	350.6
7	343.4
8	336.2
9	329.0
10	321.8
11	314.5
12	307.4
13	300.2
14	292.9
15	285.8
16	278.5
17	271.3
18	264.2
19	257.0
20	249.8
21	242.6

22	235.4
23	228.2
24	221.0
25	213.8
26	206.6
27	199.4
28	192.2
29	185.0
30	177.8
31	170.6
32	163.3
33	156.2
34	149.0
35	141.8
36	134.5
37	127.4
38	120.2
39	113.0
40	105.8
41	98.6
42	91.4
43	84.2
44	76.9
45	69.8
46	62.6
47	55.4

48	48.2
49	41.0
50	33.8

Orbital Plane 44:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	129.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	29.9
2	22.7
3	15.5
4	8.3
5	1.1
6	353.9
7	346.7
8	339.5
9	332.3

10	325.1
11	317.9
12	310.7
13	303.5
14	296.3
15	289.1
16	281.9
17	274.7
18	267.5
19	260.3
20	253.1
21	245.9
22	238.7
23	231.5
24	224.3
25	217.1
26	209.9
27	202.7
28	195.5
29	188.3
30	181.1
31	173.9
32	166.7
33	159.5
34	152.3
35	145.1

36	137.9
37	130.7
38	123.5
39	116.3
40	109.1
41	101.9
42	94.7
43	87.5
44	80.3
45	73.1
46	65.9
47	58.7
48	51.5
49	44.3
50	37.1

Orbital Plane 45:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	140.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	33.3
2	26.1
3	18.9
4	11.7
5	4.5
6	357.3
7	350.1
8	342.9
9	335.7
10	328.5
11	321.3
12	314.1
13	306.9
14	299.7
15	292.5
16	285.3
17	278.1
18	270.9
19	263.7
20	256.5
21	249.3
22	242.1
23	234.9
24	227.7

25	220.5
26	213.3
27	206.1
28	198.9
29	191.7
30	184.5
31	177.3
32	170.1
33	162.9
34	155.7
35	148.5
36	141.3
37	134.1
38	126.9
39	119.7
40	112.5
41	105.3
42	98.1
43	90.9
44	83.7
45	76.5
46	69.3
47	62.1
48	54.9
49	47.7
50	40.5

Orbital Plane 46:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	151.9 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	36.7
2	29.5
3	22.3
4	15.1
5	7.9
6	0.7
7	353.5
8	346.3
9	339.1
10	331.9
11	324.7
12	317.5
13	310.3

14	303.1
15	295.9
16	288.7
17	281.5
18	274.3
19	267.1
20	259.9
21	252.7
22	245.5
23	238.3
24	231.1
25	223.9
26	216.7
27	209.5
28	202.3
29	195.1
30	187.9
31	180.7
32	173.5
33	166.3
34	159.1
35	151.9
36	144.7
37	137.5
38	130.3
39	123.1

40	115.9
41	108.7
42	101.5
43	94.3
44	87.1
45	79.9
46	72.7
47	65.5
48	58.3
49	51.1
50	43.9

Orbital Plane 47:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	163.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	40.0

2	32.8
3	25.7
4	18.5
5	11.3
6	4.1
7	356.8
8	349.6
9	342.4
10	335.2
11	328.0
12	320.8
13	313.6
14	306.4
15	299.2
16	292.0
17	284.8
18	277.7
19	270.4
20	263.2
21	256.0
22	248.8
23	241.7
24	234.4
25	227.3
26	220.0
27	212.8

28	205.7
29	198.4
30	191.3
31	184.0
32	176.8
33	169.6
34	162.5
35	155.2
36	148.0
37	140.8
38	133.6
39	126.5
40	119.3
41	112.0
42	104.8
43	97.6
44	90.4
45	83.3
46	76.0
47	68.9
48	61.7
49	54.5
50	47.2

Orbital Plane 48:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	174.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	43.4
2	36.2
3	29.0
4	21.8
5	14.6
6	7.4
7	0.2
8	353.0
9	345.8
10	338.6
11	331.4
12	324.2
13	317.0
14	309.8
15	302.6
16	295.4

17	288.2
18	281.0
19	273.8
20	266.6
21	259.4
22	252.2
23	245.0
24	237.8
25	230.6
26	223.4
27	216.2
28	209.0
29	201.8
30	194.6
31	187.4
32	180.2
33	173.0
34	165.8
35	158.6
36	151.4
37	144.2
38	137.0
39	129.8
40	122.6
41	115.4
42	108.2

43	101.0
44	93.8
45	86.6
46	79.4
47	72.2
48	65.0
49	57.8
50	50.6

Orbital Plane 49:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	185.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	46.8
2	39.6
3	32.4
4	25.2

5	18.0
6	10.8
7	3.6
8	356.4
9	349.2
10	342.0
11	334.8
12	327.6
13	320.4
14	313.2
15	306.0
16	298.8
17	291.6
18	284.4
19	277.2
20	270.0
21	262.8
22	255.6
23	248.4
24	241.2
25	234.0
26	226.8
27	219.6
28	212.4
29	205.2
30	198.0

31	190.8
32	183.6
33	176.4
34	169.2
35	162.0
36	154.8
37	147.6
38	140.4
39	133.2
40	126.0
41	118.8
42	111.6
43	104.4
44	97.2
45	90.0
46	82.8
47	75.6
48	68.4
49	61.2
50	54.0

Orbital Plane 50:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	196.9 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	50.2
2	43.0
3	35.8
4	28.6
5	21.4
6	14.2
7	7.0
8	359.8
9	352.6
10	345.4
11	338.2
12	331.0
13	323.8
14	316.6
15	309.4
16	302.2
17	295.0
18	287.8
19	280.6

20	273.4
21	266.2
22	259.0
23	251.8
24	244.6
25	237.4
26	230.2
27	223.0
28	215.8
29	208.6
30	201.4
31	194.2
32	187.0
33	179.8
34	172.6
35	165.4
36	158.2
37	151.0
38	143.8
39	136.6
40	129.4
41	122.2
42	115.0
43	107.8
44	100.6
45	93.4

46	86.2
47	79.0
48	71.8
49	64.6
50	57.4

Orbital Plane 51:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	208.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	53.5
2	46.4
3	39.2
4	31.9
5	24.8
6	17.6
7	10.4

8	3.1
9	356.0
10	348.8
11	341.5
12	334.4
13	327.2
14	320.0
15	312.8
16	305.6
17	298.4
18	291.2
19	284.0
20	276.8
21	269.6
22	262.4
23	255.2
24	248.0
25	240.8
26	233.6
27	226.4
28	219.2
29	212.0
30	204.8
31	197.6
32	190.4
33	183.2

34	176.0
35	168.8
36	161.6
37	154.4
38	147.2
39	140.0
40	132.8
41	125.6
42	118.4
43	111.2
44	104.0
45	96.8
46	89.6
47	82.4
48	75.2
49	68.0
50	60.8

Orbital Plane 52:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	219.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	56.9
2	49.7
3	42.5
4	35.3
5	28.1
6	20.9
7	13.7
8	6.5
9	359.3
10	352.1
11	344.9
12	337.7
13	330.5
14	323.3
15	316.1
16	308.9
17	301.7
18	294.5
19	287.3
20	280.1
21	272.9

22	265.7
23	258.5
24	251.3
25	244.1
26	236.9
27	229.7
28	222.5
29	215.3
30	208.1
31	200.9
32	193.7
33	186.5
34	179.3
35	172.1
36	164.9
37	157.7
38	150.5
39	143.3
40	136.1
41	128.9
42	121.7
43	114.5
44	107.3
45	100.1
46	92.9
47	85.7

48	78.5
49	71.3
50	64.1

Orbital Plane 53:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	230.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	60.3
2	53.1
3	45.9
4	38.7
5	31.5
6	24.3
7	17.1
8	9.9
9	2.7

10	355.5
11	348.3
12	341.1
13	333.9
14	326.7
15	319.5
16	312.3
17	305.1
18	297.9
19	290.7
20	283.5
21	276.3
22	269.1
23	261.9
24	254.7
25	247.5
26	240.3
27	233.1
28	225.9
29	218.7
30	211.5
31	204.3
32	197.1
33	189.9
34	182.7
35	175.5

36	168.3
37	161.1
38	153.9
39	146.7
40	139.5
41	132.3
42	125.1
43	117.9
44	110.7
45	103.5
46	96.3
47	89.1
48	81.9
49	74.7
50	67.5

Orbital Plane 54:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	241.9 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	63.7
2	56.5
3	49.3
4	42.1
5	34.9
6	27.7
7	20.5
8	13.3
9	6.1
10	358.9
11	351.7
12	344.5
13	337.3
14	330.1
15	322.9
16	315.7
17	308.5
18	301.3
19	294.1
20	286.9
21	279.7
22	272.5
23	265.3
24	258.1

25	250.9
26	243.7
27	236.5
28	229.3
29	222.1
30	214.9
31	207.7
32	200.5
33	193.3
34	186.1
35	178.9
36	171.7
37	164.5
38	157.3
39	150.1
40	142.9
41	135.7
42	128.5
43	121.3
44	114.1
45	106.9
46	99.7
47	92.5
48	85.3
49	78.1
50	70.9

Orbital Plane 55:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	253.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	67.1
2	59.8
3	52.7
4	45.5
5	38.2
6	31.1
7	23.9
8	16.6
9	9.5
10	2.3
11	355.0
12	347.8
13	340.7

14	333.4
15	326.2
16	319.0
17	311.8
18	304.7
19	297.4
20	290.2
21	283.1
22	275.8
23	268.7
24	261.4
25	254.2
26	247.0
27	239.8
28	232.6
29	225.4
30	218.2
31	211.1
32	203.8
33	196.6
34	189.5
35	182.3
36	175.0
37	167.8
38	160.6
39	153.5

40	146.3
41	139.0
42	131.9
43	124.6
44	117.5
45	110.3
46	103.0
47	95.9
48	88.6
49	81.4
50	74.3

Orbital Plane 56:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	264.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	70.4

2	63.2
3	56.0
4	48.8
5	41.6
6	34.4
7	27.2
8	20.0
9	12.8
10	5.6
11	358.4
12	351.2
13	344.0
14	336.8
15	329.6
16	322.4
17	315.2
18	308.0
19	300.8
20	293.6
21	286.4
22	279.2
23	272.0
24	264.8
25	257.6
26	250.4
27	243.2

28	236.0
29	228.8
30	221.6
31	214.4
32	207.2
33	200.0
34	192.8
35	185.6
36	178.4
37	171.2
38	164.0
39	156.8
40	149.6
41	142.4
42	135.2
43	128.0
44	120.8
45	113.6
46	106.4
47	99.2
48	92.0
49	84.8
50	77.6

Orbital Plane 57:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	275.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	73.8
2	66.6
3	59.4
4	52.2
5	45.0
6	37.8
7	30.6
8	23.4
9	16.2
10	9.0
11	1.8
12	354.6
13	347.4
14	340.2
15	333.0
16	325.8

17	318.6
18	311.4
19	304.2
20	297.0
21	289.8
22	282.6
23	275.4
24	268.2
25	261.0
26	253.8
27	246.6
28	239.4
29	232.2
30	225.0
31	217.8
32	210.6
33	203.4
34	196.2
35	189.0
36	181.8
37	174.6
38	167.4
39	160.2
40	153.0
41	145.8
42	138.6

43	131.4
44	124.2
45	117.0
46	109.8
47	102.6
48	95.4
49	88.2
50	81.0

Orbital Plane 58:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	286.9 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	77.2
2	70.0
3	62.8
4	55.6

5	48.4
6	41.2
7	34.0
8	26.8
9	19.6
10	12.4
11	5.2
12	358.0
13	350.8
14	343.6
15	336.4
16	329.2
17	322.0
18	314.8
19	307.6
20	300.4
21	293.2
22	286.0
23	278.8
24	271.6
25	264.4
26	257.2
27	250.0
28	242.8
29	235.6
30	228.4

31	221.2
32	214.0
33	206.8
34	199.6
35	192.4
36	185.2
37	178.0
38	170.8
39	163.6
40	156.4
41	149.2
42	142.0
43	134.8
44	127.6
45	120.4
46	113.2
47	106.0
48	98.8
49	91.6
50	84.4

Orbital Plane 59:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	298.1 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	80.6
2	73.3
3	66.2
4	59.0
5	51.8
6	44.6
7	37.4
8	30.2
9	23.0
10	15.8
11	8.6
12	1.4
13	354.2
14	347.0
15	339.8
16	332.6
17	325.3
18	318.2
19	311.0

20	303.8
21	296.6
22	289.3
23	282.2
24	275.0
25	267.8
26	260.6
27	253.4
28	246.2
29	239.0
30	231.7
31	224.6
32	217.4
33	210.2
34	203.0
35	195.8
36	188.5
37	181.4
38	174.2
39	167.0
40	159.8
41	152.6
42	145.4
43	138.2
44	131.0
45	123.8

46	116.6
47	109.4
48	102.2
49	95.0
50	87.8

Orbital Plane 60:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	309.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	83.9
2	76.7
3	69.5
4	62.3
5	55.1
6	47.9
7	40.7

8	33.5
9	26.3
10	19.1
11	11.9
12	4.7
13	357.5
14	350.3
15	343.1
16	335.9
17	328.7
18	321.5
19	314.3
20	307.1
21	299.9
22	292.7
23	285.5
24	278.3
25	271.1
26	263.9
27	256.7
28	249.5
29	242.3
30	235.1
31	227.9
32	220.7
33	213.5

34	206.3
35	199.1
36	191.9
37	184.7
38	177.5
39	170.3
40	163.1
41	155.9
42	148.7
43	141.5
44	134.3
45	127.1
46	119.9
47	112.7
48	105.5
49	98.3
50	91.1

Orbital Plane 61:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	320.6 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	87.3
2	80.1
3	72.9
4	65.7
5	58.5
6	51.3
7	44.1
8	36.9
9	29.7
10	22.5
11	15.3
12	8.1
13	0.9
14	353.7
15	346.5
16	339.3
17	332.1
18	324.9
19	317.7
20	310.5
21	303.3

22	296.1
23	288.9
24	281.7
25	274.5
26	267.3
27	260.1
28	252.9
29	245.7
30	238.5
31	231.3
32	224.1
33	216.9
34	209.7
35	202.5
36	195.3
37	188.1
38	180.9
39	173.7
40	166.5
41	159.3
42	152.1
43	144.9
44	137.7
45	130.5
46	123.3
47	116.1

48	108.9
49	101.7
50	94.5

Orbital Plane 62:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	331.9 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	90.7
2	83.5
3	76.3
4	69.1
5	61.9
6	54.7
7	47.5
8	40.3
9	33.1

10	25.9
11	18.7
12	11.5
13	4.3
14	357.1
15	349.9
16	342.7
17	335.5
18	328.3
19	321.1
20	313.9
21	306.7
22	299.5
23	292.3
24	285.1
25	277.9
26	270.7
27	263.5
28	256.3
29	249.1
30	241.9
31	234.7
32	227.5
33	220.3
34	213.1
35	205.9

36	198.7
37	191.5
38	184.3
39	177.1
40	169.9
41	162.7
42	155.5
43	148.3
44	141.1
45	133.9
46	126.7
47	119.5
48	112.3
49	105.1
50	97.9

Orbital Plane 63:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	343.1 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	94.1
2	86.9
3	79.6
4	72.4
5	65.2
6	58.1
7	50.9
8	43.6
9	36.5
10	29.3
11	22.0
12	14.9
13	7.6
14	0.4
15	353.2
16	346.0
17	338.8
18	331.7
19	324.4
20	317.2
21	310.0
22	302.8
23	295.7
24	288.5

25	281.2
26	274.0
27	266.8
28	259.7
29	252.5
30	245.3
31	238.0
32	230.8
33	223.6
34	216.4
35	209.2
36	202.0
37	194.8
38	187.6
39	180.5
40	173.3
41	166.0
42	158.9
43	151.6
44	144.5
45	137.2
46	130.0
47	122.9
48	115.6
49	108.5
50	101.3

Orbital Plane 64:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	53.8 degrees
Right Ascension of Ascending Node	354.4 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6420.0 seconds
Apogee	1110.0 km
Perigee	1110.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	97.4
2	90.2
3	83.0
4	75.8
5	68.6
6	61.4
7	54.2
8	47.0
9	39.8
10	32.6
11	25.4
12	18.2
13	11.0

14	3.8
15	356.6
16	349.4
17	342.2
18	335.0
19	327.8
20	320.6
21	313.4
22	306.2
23	299.0
24	291.8
25	284.6
26	277.4
27	270.2
28	263.0
29	255.8
30	248.6
31	241.4
32	234.2
33	227.0
34	219.8
35	212.6
36	205.4
37	198.2
38	191.0
39	183.8

40	176.6
41	169.4
42	162.2
43	155.0
44	147.8
45	140.6
46	133.4
47	126.2
48	119.0
49	111.8
50	104.6

Orbital Plane 65:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	355.8

2	345.6
3	341.4
4	331.2
5	327.0
6	316.8
7	312.6
8	302.4
9	298.2
10	288.0
11	283.8
12	273.6
13	269.4
14	259.2
15	255.0
16	244.8
17	240.6
18	230.4
19	226.2
20	216.0
21	211.8
22	201.6
23	197.4
24	187.2
25	183.0
26	172.8
27	168.6

28	158.4
29	154.2
30	144.0
31	139.8
32	129.6
33	125.4
34	115.2
35	111.0
36	100.8
37	96.6
38	86.4
39	82.2
40	72.0
41	67.8
42	57.6
43	53.4
44	43.2
45	39.0
46	28.8
47	24.6
48	14.4
49	10.2
50	0.0

Orbital Plane 66:

Question	Response
Number of Satellites in Plane	50

Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	45.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	3.0
2	352.8
3	348.6
4	338.4
5	334.2
6	324.0
7	319.8
8	309.6
9	305.4
10	295.2
11	291.0
12	280.8
13	276.6
14	266.4
15	262.2
16	252.0

17	247.8
18	237.6
19	233.4
20	223.2
21	219.0
22	208.8
23	204.6
24	194.4
25	190.2
26	180.0
27	175.8
28	165.6
29	161.4
30	151.2
31	147.0
32	136.8
33	132.6
34	122.4
35	118.2
36	108.0
37	103.8
38	93.6
39	89.4
40	79.2
41	75.0
42	64.8

43	60.6
44	50.4
45	46.2
46	36.0
47	31.8
48	21.6
49	17.4
50	7.2

Orbital Plane 67:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	90.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	10.2
2	0.0
3	355.8
4	345.6

5	341.4
6	331.2
7	327.0
8	316.8
9	312.6
10	302.4
11	298.2
12	288.0
13	283.8
14	273.6
15	269.4
16	259.2
17	255.0
18	244.8
19	240.6
20	230.4
21	226.2
22	216.0
23	211.8
24	201.6
25	197.4
26	187.2
27	183.0
28	172.8
29	168.6
30	158.4

31	154.2
32	144.0
33	139.8
34	129.6
35	125.4
36	115.2
37	111.0
38	100.8
39	96.6
40	86.4
41	82.2
42	72.0
43	67.8
44	57.6
45	53.4
46	43.2
47	39.0
48	28.8
49	24.6
50	14.4

Orbital Plane 68:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	135.0 degrees
Argument of Perigee	0.0 degrees

Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	17.4
2	7.2
3	3.0
4	352.8
5	348.6
6	338.4
7	334.2
8	324.0
9	319.8
10	309.6
11	305.4
12	295.2
13	291.0
14	280.8
15	276.6
16	266.4
17	262.2
18	252.0
19	247.8

20	237.6
21	233.4
22	223.2
23	219.0
24	208.8
25	204.6
26	194.4
27	190.2
28	180.0
29	175.8
30	165.6
31	161.4
32	151.2
33	147.0
34	136.8
35	132.6
36	122.4
37	118.2
38	108.0
39	103.8
40	93.6
41	89.4
42	79.2
43	75.0
44	64.8
45	60.6

46	50.4
47	46.2
48	36.0
49	31.8
50	21.6

Orbital Plane 69:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	180.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	24.6
2	14.4
3	10.2
4	0.0
5	355.8
6	345.6
7	341.4

8	331.2
9	327.0
10	316.8
11	312.6
12	302.4
13	298.2
14	288.0
15	283.8
16	273.6
17	269.4
18	259.2
19	255.0
20	244.8
21	240.6
22	230.4
23	226.2
24	216.0
25	211.8
26	201.6
27	197.4
28	187.2
29	183.0
30	172.8
31	168.6
32	158.4
33	154.2

34	144.0
35	139.8
36	129.6
37	125.4
38	115.2
39	111.0
40	100.8
41	96.6
42	86.4
43	82.2
44	72.0
45	67.8
46	57.6
47	53.4
48	43.2
49	39.0
50	28.8

Orbital Plane 70:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	225.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km

Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	31.8
2	21.6
3	17.4
4	7.2
5	3.0
6	352.8
7	348.6
8	338.4
9	334.2
10	324.0
11	319.8
12	309.6
13	305.4
14	295.2
15	291.0
16	280.8
17	276.6
18	266.4
19	262.2
20	252.0
21	247.8

22	237.6
23	233.4
24	223.2
25	219.0
26	208.8
27	204.6
28	194.4
29	190.2
30	180.0
31	175.8
32	165.6
33	161.4
34	151.2
35	147.0
36	136.8
37	132.6
38	122.4
39	118.2
40	108.0
41	103.8
42	93.6
43	89.4
44	79.2
45	75.0
46	64.8
47	60.6

48	50.4
49	46.2
50	36.0

Orbital Plane 71:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	270.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	39.0
2	28.8
3	24.6
4	14.4
5	10.2
6	0.0
7	355.8
8	345.6
9	341.4

10	331.2
11	327.0
12	316.8
13	312.6
14	302.4
15	298.2
16	288.0
17	283.8
18	273.6
19	269.4
20	259.2
21	255.0
22	244.8
23	240.6
24	230.4
25	226.2
26	216.0
27	211.8
28	201.6
29	197.4
30	187.2
31	183.0
32	172.8
33	168.6
34	158.4
35	154.2

36	144.0
37	139.8
38	129.6
39	125.4
40	115.2
41	111.0
42	100.8
43	96.6
44	86.4
45	82.2
46	72.0
47	67.8
48	57.6
49	53.4
50	43.2

Orbital Plane 72:

Question	Response
Number of Satellites in Plane	50
Inclination Angle	74.0 degrees
Right Ascension of Ascending Node	315.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6480.0 seconds
Apogee	1130.0 km
Perigee	1130.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	46.2
2	36.0
3	31.8
4	21.6
5	17.4
6	7.2
7	3.0
8	352.8
9	348.6
10	338.4
11	334.2
12	324.0
13	319.8
14	309.6
15	305.4
16	295.2
17	291.0
18	280.8
19	276.6
20	266.4
21	262.2
22	252.0
23	247.8
24	237.6

25	233.4
26	223.2
27	219.0
28	208.8
29	204.6
30	194.4
31	190.2
32	180.0
33	175.8
34	165.6
35	161.4
36	151.2
37	147.0
38	136.8
39	132.6
40	122.4
41	118.2
42	108.0
43	103.8
44	93.6
45	89.4
46	79.2
47	75.0
48	64.8
49	60.6
50	50.4

Orbital Plane 73:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	70.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6720.0 seconds
Apogee	1325.0 km
Perigee	1325.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	259.2
2	254.4
3	249.6
4	244.8
5	240.0
6	235.2
7	230.4
8	225.6
9	220.8
10	216.0
11	211.2
12	206.4
13	201.6

14	196.8
15	192.0
16	187.2
17	182.4
18	177.6
19	172.8
20	168.0
21	163.2
22	158.4
23	153.6
24	148.8
25	144.0
26	139.2
27	134.4
28	129.6
29	124.8
30	120.0
31	115.2
32	110.4
33	105.6
34	100.8
35	96.0
36	91.2
37	86.4
38	81.6
39	355.2

40	350.4
41	345.6
42	340.8
43	336.0
44	331.2
45	326.4
46	321.6
47	316.8
48	312.0
49	307.2
50	302.4
51	297.6
52	292.8
53	288.0
54	283.2
55	278.4
56	273.6
57	268.8
58	264.0
59	76.8
60	72.0
61	67.2
62	62.4
63	57.6
64	52.8
65	48.0

66	43.2
67	38.4
68	33.6
69	28.8
70	24.0
71	19.2
72	14.4
73	9.6
74	4.8
75	0.0

Orbital Plane 74:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	70.0 degrees
Right Ascension of Ascending Node	60.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6720.0 seconds
Apogee	1325.0 km
Perigee	1325.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	356.0
2	351.2

3	346.4
4	341.6
5	336.8
6	332.0
7	327.2
8	322.4
9	317.6
10	312.8
11	308.0
12	303.2
13	298.4
14	293.6
15	288.8
16	284.0
17	279.2
18	274.4
19	269.6
20	264.8
21	260.0
22	255.2
23	250.4
24	245.6
25	240.8
26	236.0
27	231.2
28	226.4

29	221.6
30	216.8
31	212.0
32	207.2
33	202.4
34	197.6
35	192.8
36	188.0
37	183.2
38	178.4
39	173.6
40	168.8
41	164.0
42	159.2
43	154.4
44	149.6
45	144.8
46	140.0
47	135.2
48	130.4
49	125.6
50	120.8
51	116.0
52	111.2
53	106.4
54	101.6

55	96.8
56	92.0
57	87.2
58	82.4
59	77.6
60	72.8
61	68.0
62	63.2
63	58.4
64	53.6
65	48.8
66	44.0
67	39.2
68	34.4
69	29.6
70	24.8
71	20.0
72	15.2
73	10.4
74	5.6
75	0.8

Orbital Plane 75:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	70.0 degrees
Right Ascension of Ascending Node	120.0 degrees

Argument of Perigee	0.0 degrees
Orbital Period	6720.0 seconds
Apogee	1325.0 km
Perigee	1325.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	284.8
2	280.0
3	275.2
4	270.4
5	265.6
6	260.8
7	256.0
8	251.2
9	246.4
10	241.6
11	236.8
12	232.0
13	227.2
14	222.4
15	217.6
16	212.8
17	208.0
18	203.2

19	198.4
20	193.6
21	188.8
22	184.0
23	179.2
24	174.4
25	169.6
26	164.8
27	160.0
28	155.2
29	150.4
30	145.6
31	140.8
32	136.0
33	131.2
34	126.4
35	121.6
36	116.8
37	112.0
38	107.2
39	102.4
40	97.6
41	92.8
42	88.0
43	83.2
44	356.8

45	352.0
46	347.2
47	342.4
48	337.6
49	332.8
50	328.0
51	323.2
52	318.4
53	313.6
54	308.8
55	304.0
56	299.2
57	294.4
58	289.6
59	78.4
60	73.6
61	68.8
62	64.0
63	59.2
64	54.4
65	49.6
66	44.8
67	40.0
68	35.2
69	30.4
70	25.6

71	20.8
72	16.0
73	11.2
74	6.4
75	1.6

Orbital Plane 76:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	70.0 degrees
Right Ascension of Ascending Node	180.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6720.0 seconds
Apogee	1325.0 km
Perigee	1325.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	357.6
2	352.8
3	348.0
4	343.2
5	338.4
6	333.6
7	328.8

8	324.0
9	319.2
10	314.4
11	309.6
12	304.8
13	300.0
14	295.2
15	290.4
16	285.6
17	280.8
18	276.0
19	271.2
20	266.4
21	261.6
22	256.8
23	252.0
24	247.2
25	242.4
26	237.6
27	232.8
28	228.0
29	223.2
30	218.4
31	213.6
32	208.8
33	204.0

34	199.2
35	194.4
36	189.6
37	184.8
38	180.0
39	175.2
40	170.4
41	165.6
42	160.8
43	156.0
44	151.2
45	146.4
46	141.6
47	136.8
48	132.0
49	127.2
50	122.4
51	117.6
52	112.8
53	108.0
54	103.2
55	98.4
56	93.6
57	88.8
58	84.0
59	79.2

60	74.4
61	69.6
62	64.8
63	60.0
64	55.2
65	50.4
66	45.6
67	40.8
68	36.0
69	31.2
70	26.4
71	21.6
72	16.8
73	12.0
74	7.2
75	2.4

Orbital Plane 77:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	70.0 degrees
Right Ascension of Ascending Node	240.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6720.0 seconds
Apogee	1325.0 km
Perigee	1325.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees

Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	310.4
2	305.6
3	300.8
4	296.0
5	291.2
6	286.4
7	281.6
8	276.8
9	272.0
10	267.2
11	262.4
12	257.6
13	252.8
14	248.0
15	243.2
16	238.4
17	233.6
18	228.8
19	224.0
20	219.2
21	214.4
22	209.6

23	204.8
24	200.0
25	195.2
26	190.4
27	185.6
28	180.8
29	176.0
30	171.2
31	166.4
32	161.6
33	156.8
34	152.0
35	147.2
36	142.4
37	137.6
38	132.8
39	128.0
40	123.2
41	118.4
42	113.6
43	108.8
44	104.0
45	99.2
46	94.4
47	89.6
48	84.8

49	358.4
50	353.6
51	348.8
52	344.0
53	339.2
54	334.4
55	329.6
56	324.8
57	320.0
58	315.2
59	80.0
60	75.2
61	70.4
62	65.6
63	60.8
64	56.0
65	51.2
66	46.4
67	41.6
68	36.8
69	32.0
70	27.2
71	22.4
72	17.6
73	12.8
74	8.0

75	3.2

Orbital Plane 78:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	70.0 degrees
Right Ascension of Ascending Node	300.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6720.0 seconds
Apogee	1325.0 km
Perigee	1325.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	359.2
2	354.4
3	349.6
4	344.8
5	340.0
6	335.2
7	330.4
8	325.6
9	320.8
10	316.0
11	311.2

12	306.4
13	301.6
14	296.8
15	292.0
16	287.2
17	282.4
18	277.6
19	272.8
20	268.0
21	263.2
22	258.4
23	253.6
24	248.8
25	244.0
26	239.2
27	234.4
28	229.6
29	224.8
30	220.0
31	215.2
32	210.4
33	205.6
34	200.8
35	196.0
36	191.2
37	186.4

38	181.6
39	176.8
40	172.0
41	167.2
42	162.4
43	157.6
44	152.8
45	148.0
46	143.2
47	138.4
48	133.6
49	128.8
50	124.0
51	119.2
52	114.4
53	109.6
54	104.8
55	100.0
56	95.2
57	90.4
58	85.6
59	80.8
60	76.0
61	71.2
62	66.4
63	61.6

64	56.8
65	52.0
66	47.2
67	42.4
68	37.6
69	32.8
70	28.0
71	23.2
72	18.4
73	13.6
74	8.8
75	4.0

Orbital Plane 79:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	81.0 degrees
Right Ascension of Ascending Node	0.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6660.0 seconds
Apogee	1275.0 km
Perigee	1275.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date

1	331.2
2	326.4
3	321.6
4	316.8
5	312.0
6	307.2
7	302.4
8	297.6
9	292.8
10	288.0
11	283.2
12	278.4
13	273.6
14	268.8
15	264.0
16	259.2
17	254.4
18	249.6
19	244.8
20	240.0
21	235.2
22	230.4
23	225.6
24	220.8
25	216.0
26	211.2

27	206.4
28	201.6
29	196.8
30	192.0
31	187.2
32	182.4
33	177.6
34	172.8
35	168.0
36	163.2
37	158.4
38	153.6
39	148.8
40	144.0
41	139.2
42	134.4
43	129.6
44	124.8
45	120.0
46	115.2
47	110.4
48	105.6
49	100.8
50	96.0
51	91.2
52	86.4

53	81.6
54	355.2
55	350.4
56	345.6
57	340.8
58	336.0
59	76.8
60	72.0
61	67.2
62	62.4
63	57.6
64	52.8
65	48.0
66	43.2
67	38.4
68	33.6
69	28.8
70	24.0
71	19.2
72	14.4
73	9.6
74	4.8
75	0.0

Orbital Plane 80:

Question	Response
Number of Satellites in Plane	75

Inclination Angle	81.0 degrees
Right Ascension of Ascending Node	72.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6660.0 seconds
Apogee	1275.0 km
Perigee	1275.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	356.0
2	351.2
3	346.4
4	341.6
5	336.8
6	332.0
7	327.2
8	322.4
9	317.6
10	312.8
11	308.0
12	303.2
13	298.4
14	293.6
15	288.8
16	284.0

17	279.2
18	274.4
19	269.6
20	264.8
21	260.0
22	255.2
23	250.4
24	245.6
25	240.8
26	236.0
27	231.2
28	226.4
29	221.6
30	216.8
31	212.0
32	207.2
33	202.4
34	197.6
35	192.8
36	188.0
37	183.2
38	178.4
39	173.6
40	168.8
41	164.0
42	159.2

43	154.4
44	149.6
45	144.8
46	140.0
47	135.2
48	130.4
49	125.6
50	120.8
51	116.0
52	111.2
53	106.4
54	101.6
55	96.8
56	92.0
57	87.2
58	82.4
59	77.6
60	72.8
61	68.0
62	63.2
63	58.4
64	53.6
65	48.8
66	44.0
67	39.2
68	34.4

69	29.6
70	24.8
71	20.0
72	15.2
73	10.4
74	5.6
75	0.8

Orbital Plane 81:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	81.0 degrees
Right Ascension of Ascending Node	144.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6660.0 seconds
Apogee	1275.0 km
Perigee	1275.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	356.8
2	352.0
3	347.2
4	342.4
5	337.6

6	332.8
7	328.0
8	323.2
9	318.4
10	313.6
11	308.8
12	304.0
13	299.2
14	294.4
15	289.6
16	284.8
17	280.0
18	275.2
19	270.4
20	265.6
21	260.8
22	256.0
23	251.2
24	246.4
25	241.6
26	236.8
27	232.0
28	227.2
29	222.4
30	217.6
31	212.8

32	208.0
33	203.2
34	198.4
35	193.6
36	188.8
37	184.0
38	179.2
39	174.4
40	169.6
41	164.8
42	160.0
43	155.2
44	150.4
45	145.6
46	140.8
47	136.0
48	131.2
49	126.4
50	121.6
51	116.8
52	112.0
53	107.2
54	102.4
55	97.6
56	92.8
57	88.0

58	83.2
59	78.4
60	73.6
61	68.8
62	64.0
63	59.2
64	54.4
65	49.6
66	44.8
67	40.0
68	35.2
69	30.4
70	25.6
71	20.8
72	16.0
73	11.2
74	6.4
75	1.6

Orbital Plane 82:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	81.0 degrees
Right Ascension of Ascending Node	216.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6660.0 seconds
Apogee	1275.0 km

Perigee	1275.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	357.6
2	352.8
3	348.0
4	343.2
5	338.4
6	333.6
7	328.8
8	324.0
9	319.2
10	314.4
11	309.6
12	304.8
13	300.0
14	295.2
15	290.4
16	285.6
17	280.8
18	276.0
19	271.2
20	266.4

21	261.6
22	256.8
23	252.0
24	247.2
25	242.4
26	237.6
27	232.8
28	228.0
29	223.2
30	218.4
31	213.6
32	208.8
33	204.0
34	199.2
35	194.4
36	189.6
37	184.8
38	180.0
39	175.2
40	170.4
41	165.6
42	160.8
43	156.0
44	151.2
45	146.4
46	141.6

47	136.8
48	132.0
49	127.2
50	122.4
51	117.6
52	112.8
53	108.0
54	103.2
55	98.4
56	93.6
57	88.8
58	84.0
59	79.2
60	74.4
61	69.6
62	64.8
63	60.0
64	55.2
65	50.4
66	45.6
67	40.8
68	36.0
69	31.2
70	26.4
71	21.6
72	16.8

73	12.0
74	7.2
75	2.4

Orbital Plane 83:

Question	Response
Number of Satellites in Plane	75
Inclination Angle	81.0 degrees
Right Ascension of Ascending Node	288.0 degrees
Argument of Perigee	0.0 degrees
Orbital Period	6660.0 seconds
Apogee	1275.0 km
Perigee	1275.0 km
Active Service Arc Begin Angle with respect to Ascending Node	0.0 degrees
Active Service Arc End Angle with respect to Ascending Node	360.0 degrees

Mean Anomaly For Each Satellite

Satellite Number	Mean Anomaly (degrees) at the Orbit Epoch Date
1	358.4
2	353.6
3	348.8
4	344.0
5	339.2
6	334.4
7	329.6
8	324.8
9	320.0

10	315.2
11	310.4
12	305.6
13	300.8
14	296.0
15	291.2
16	286.4
17	281.6
18	276.8
19	272.0
20	267.2
21	262.4
22	257.6
23	252.8
24	248.0
25	243.2
26	238.4
27	233.6
28	228.8
29	224.0
30	219.2
31	214.4
32	209.6
33	204.8
34	200.0
35	195.2

36	190.4
37	185.6
38	180.8
39	176.0
40	171.2
41	166.4
42	161.6
43	156.8
44	152.0
45	147.2
46	142.4
47	137.6
48	132.8
49	128.0
50	123.2
51	118.4
52	113.6
53	108.8
54	104.0
55	99.2
56	94.4
57	89.6
58	84.8
59	80.0
60	75.2
61	70.4

62	65.6
63	60.8
64	56.0
65	51.2
66	46.4
67	41.6
68	36.8
69	32.0
70	27.2
71	22.4
72	17.6
73	12.8
74	8.0
75	3.2

Receiving Beams 1:

Question	Response
Beam ID	UU1
Receive Beam Frequency	14000.0 MHz -14125.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.8 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 2:

Question	Response
Beam ID	UU2
Receive Beam Frequency	14125.0 MHz -14250.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees

Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.8 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 3:

Question	Response
Beam ID	UU3
Receive Beam Frequency	14250.0 MHz -14375.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.8 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving

Beams 4:

Question	Response
Beam ID	UU4
Receive Beam Frequency	14375.0 MHz -14500.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	LHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	9.8 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 5:

Question	Response
Beam ID	GU1
Receive Beam Frequency	27600.0 MHz -28100.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 6:

Question	Response
Beam ID	GU2
Receive Beam Frequency	28100.0 MHz -28600.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 7:

Question	Response

Beam ID	GU3
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 8:

Question	Response
Beam ID	GU4
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 9:

Question	Response
Beam ID	GU5
Receive Beam Frequency	27600.0 MHz -28100.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 10:

Question	Response

Beam ID	GU6
Receive Beam Frequency	28100.0 MHz -28600.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 11:

Question	Response
Beam ID	GU7
Receive Beam Frequency	28600.0 MHz -29100.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 12:

Question	Response
Beam ID	GU8
Receive Beam Frequency	29500.0 MHz -30000.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	13.7 dB/K
Min. Saturation Flux Density	-0.01 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Beams 13:

Question	Response

Beam ID	TTU1
Receive Beam Frequency	13850.0 MHz -14000.0 MHz
Beam Type	Fixed
Polarization	RHCP
Peak Gain	3.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
G/T at Max. Gain Point	-29.3 dB/K
Min. Saturation Flux Density	-0.1 dBW/m2
Max. Saturation Flux Density	0.0 dBW/m2
Co- or Cross Polar Mode	C
Service Area Description	Global

Receiving Channels (15)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
CGU8	500.0	29750.0	Service Link
CGU7	500.0	28850.0	Service Link
CGU6	500.0	28350.0	Service Link
CGU5	500.0	27850.0	Service Link
CUU4	125.0	14437.5	Service Link
CGU4	500.0	29750.0	Service Link
CGU3	500.0	28850.0	Service Link
CUU3	125.0	14312.5	Service Link
CUU2	125.0	14187.5	Service Link
CUU1	125.0	14062.5	Service Link
CGU2	500.0	28350.0	Service Link
CGU1	500.0	27850.0	Service Link
CTU2	50.0	13925.0	TT&C
CTU1	50.0	13875.0	TT&C
CTU3	50.0	13975.0	TT&C

Transmitting Beams 1:

Question	Response
Beam ID	UD1
Transmit Beam Frequency	10700.0 MHz -10950.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-47.09 dBW/Hz
Max. Transmit EIRP	36.71 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-189.2	-188.1	-186.9	-185.9	-184.9	-146.0

Transmitting Beams 2:

Question	Response
Beam ID	UD2
Transmit Beam Frequency	10950.0 MHz -11200.0 MHz

Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-47.09 dBW/Hz
Max. Transmit EIRP	36.71 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-189.2	-188.1	-186.9	-185.9	-184.9	-146.0

Transmitting Beams 3:

Question	Response
Beam ID	UD3
Transmit Beam Frequency	11200.0 MHz -11450.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-47.09 dBW/Hz
Max. Transmit EIRP	36.71 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-189.2	-188.1	-186.9	-185.9	-184.9	-146.0

Transmitting Beams 4:

Question	Response
Beam ID	UD4
Transmit Beam Frequency	11450.0 MHz -11700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-47.09 dBW/Hz

Max. Transmit EIRP	36.71 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-189.2	-188.1	-186.9	-185.9	-184.9	-146.0

Transmitting Beams 5:

Question	Response
Beam ID	UD5
Transmit Beam Frequency	11700.0 MHz -11950.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-47.09 dBW/Hz
Max. Transmit EIRP	36.71 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

Information not provided.

Transmitting Beams 6:

Question	Response
Beam ID	UD6
Transmit Beam Frequency	11950.0 MHz -12200.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-47.09 dBW/Hz
Max. Transmit EIRP	36.71 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

Information not provided.

Transmitting Beams 7:

Question	Response
Beam ID	UD7
Transmit Beam Frequency	12200.0 MHz -12450.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi

Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-48.59 dBW/Hz
Max. Transmit EIRP	35.21 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 1° (dbW/m^2 /BW):	* 1° - 2° (dbW/m^2 /BW):	* 2° - 3° (dbW/m^2 /BW):	* 3° - 4° (dbW/m^2 /BW):	* 4° - 5° (dbW/m^2 /BW):
4.0 kHz	-191.7	-191.5	-191.2	-191.0	-190.7

Transmitting Beams 8:

Question	Response
Beam ID	UD8
Transmit Beam Frequency	12450.0 MHz -12700.0 MHz
Beam Type	Both Steerable and Shapeable
Polarization	RHCP
Peak Gain	37.1 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees

Max. Transmit EIRP Density	-47.09 dBW/Hz
Max. Transmit EIRP	36.71 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 1° (dbW/m^2 /BW):	* 1° - 2° (dbW/m^2 /BW):	* 2° - 3° (dbW/m^2 /BW):	* 3° - 4° (dbW/m^2 /BW):	* 4° - 5° (dbW/m^2 /BW):
4.0 kHz	-191.7	-191.5	-191.2	-191.0	-190.7

Transmitting Beams 9:

Question	Response
Beam ID	GD1
Transmit Beam Frequency	17800.0 MHz -18050.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 10:

Question	Response
Beam ID	GD2
Transmit Beam Frequency	18050.0 MHz -18300.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):

1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 11:

Question	Response
Beam ID	GD3
Transmit Beam Frequency	18800.0 MHz -19050.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 12:

Question	Response

Beam ID	GD4
Transmit Beam Frequency	19050.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 13:

Question	Response
Beam ID	GD5
Transmit Beam Frequency	17800.0 MHz -18050.0 MHz
Beam Type	Steerable
Polarization	LHCP

Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 14:

Question	Response
Beam ID	GD6
Transmit Beam Frequency	18050.0 MHz -18300.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	

Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 15:

Question	Response
Beam ID	GD7
Transmit Beam Frequency	18800.0 MHz -19050.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C

Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 16:

Question	Response
Beam ID	GD8
Transmit Beam Frequency	19050.0 MHz -19300.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 17:

Question	Response
Beam ID	GD9
Transmit Beam Frequency	18300.0 MHz -18550.0 MHz
Beam Type	Steerable
Polarization	LHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 18:

Question	Response
Beam ID	TTD1
Transmit Beam Frequency	12150.0 MHz -12200.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	3.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-83.66 dBW/Hz
Max. Transmit EIRP	0.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
4.0 kHz	-199.2	-198.1	-196.9	-195.9	-194.9	-189.5

Transmitting Beams 19:

Question	Response
Beam ID	TTD2
Transmit Beam Frequency	18550.0 MHz -18600.0 MHz

Beam Type	Fixed
Polarization	LHCP
Peak Gain	5.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-69.53 dBW/Hz
Max. Transmit EIRP	7.46 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-171.4	-169.0	-166.7	-164.6	-162.7	-151.9

Transmitting Beams 20:

Question	Response
Beam ID	GD10
Transmit Beam Frequency	18300.0 MHz -18550.0 MHz
Beam Type	Steerable
Polarization	RHCP
Peak Gain	41.0 dBi
Antenna Pointing Error	0.1 degrees

Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-44.36 dBW/Hz
Max. Transmit EIRP	39.44 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 5° (dbW/m^2 /BW):	* 5° - 10° (dbW/m^2 /BW):	* 10° - 15° (dbW/m^2 /BW):	* 15° - 20° (dbW/m^2 /BW):	* 20° - 25° (dbW/m^2 /BW):	* 25° - 90° (dbW/m^2 /BW):
1.0 MHz	-156.0	-154.8	-153.7	-152.6	-151.7	-116.3

Transmitting Beams 21:

Question	Response
Beam ID	TTD3
Transmit Beam Frequency	12200.0 MHz -12250.0 MHz
Beam Type	Fixed
Polarization	LHCP
Peak Gain	3.0 dBi
Antenna Pointing Error	0.1 degrees
Antenna Rotational Error	0.1 degrees
Polarization Switchable	
Polarization Alignment Relative to the Equatorial Plane	45.0 degrees
Max. Transmit EIRP Density	-83.66 dBW/Hz

Max. Transmit EIRP	0.0 dBW
Co- or Cross Polar Mode	C
Service Area Description	Global

Max. Power Flux Density

* BW:	* 0° - 1° (dbW/m^2 /BW):	* 1° - 2° (dbW/m^2 /BW):	* 2° - 3° (dbW/m^2 /BW):	* 3° - 4° (dbW/m^2 /BW):	* 4° - 5° (dbW/m^2 /BW):
4.0 kHz	-200.0	-200.0	-199.7	-199.5	-199.2

Transmitting Channels (20)

Channel ID	Channel Bandwidth (MHz)	Center Frequency s (MHz)	Feeder Link, Service Link or TT&C
CTD1	50.0	12175.0	TT&C
CTD2	50.0	12225.0	TT&C
CTD3	50.0	18575.0	TT&C
CGD8	250.0	19175.0	Service Link
CGD7	250.0	18925.0	Service Link
CGD4	250.0	19175.0	Service Link
CGD3	250.0	18925.0	Service Link
CGD2	250.0	18175.0	Service Link
CGD1	250.0	17925.0	Service Link
CUD8	250.0	12575.0	Service Link
CUD7	250.0	12325.0	Service Link
CUD6	250.0	12075.0	Service Link
CUD5	250.0	11825.0	Service Link
CUD4	250.0	11575.0	Service Link
CUD3	250.0	11325.0	Service Link
CUD1	250.0	10825.0	Service Link
CUD2	250.0	11075.0	Service Link
CGD9	250.0	18425.0	Service Link
CGD5	250.0	17925.0	Service Link
CGD6	250.0	18175.0	Service Link

Certification Questions

Question	Response
Are the applicable service area coverage requirements of 25.143(b)(2)(ii) and (iii), or 25.144(a)(3)(i), or 25.145(c)(1) and (2), or 25.146(i)(1) and (2), or 25.148(c), or 25.225 met?	Yes
Are the applicable frequency tolerances of 25.202(e) and out-of-band emission limits of 25.202(f)(1),(2), and (3) met?	Yes
Are the cessation of emissions requirements of 25.207 met?	Yes
Are the applicable power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	No
For NGSO applications, are the applicable equivalent-power-flux-density limits of 25.208 met, and is the appropriate technical showing provided within the application?	Yes
Are the applicable full-frequency-reuse requirements of 25.210 met?	Yes
If the application is for a 17/24 GHz BSS space station, will it be operated at an offset location with full power and interference protection in accordance with 25.262(b)?	

Attachments

File Name	Beam	Field	Attachment Type	Description
SpaceX Contours.mdb		NGSO Antenna Gain Data	GIMS file (*.mdb)	Contours for all uplink and downlink beams.All beams in all planes in a given band and of a given type share a common set of contours. For service beams contours are provided at steering angles from 0 to the maximum 40 degrees.