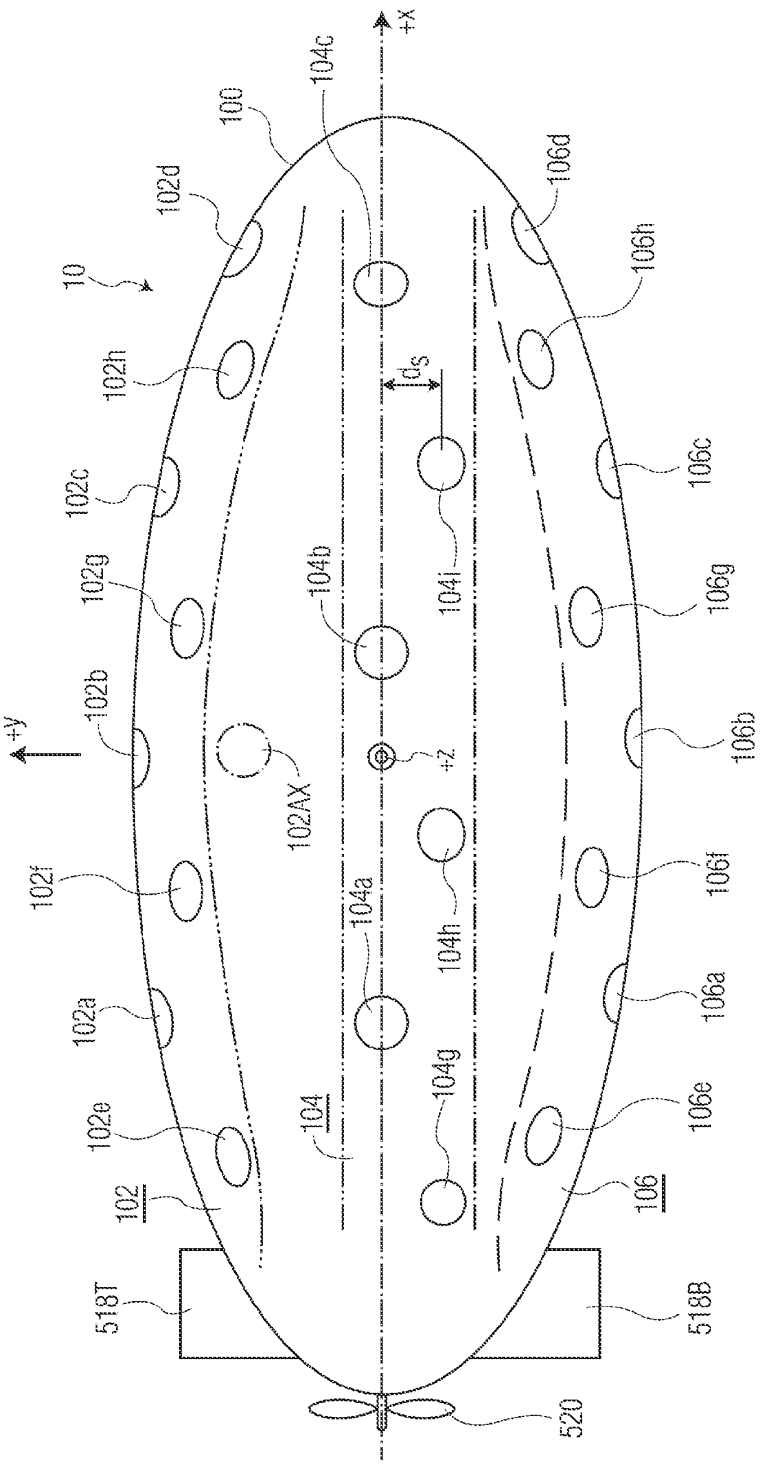


FIG. 1
SIDE VIEW

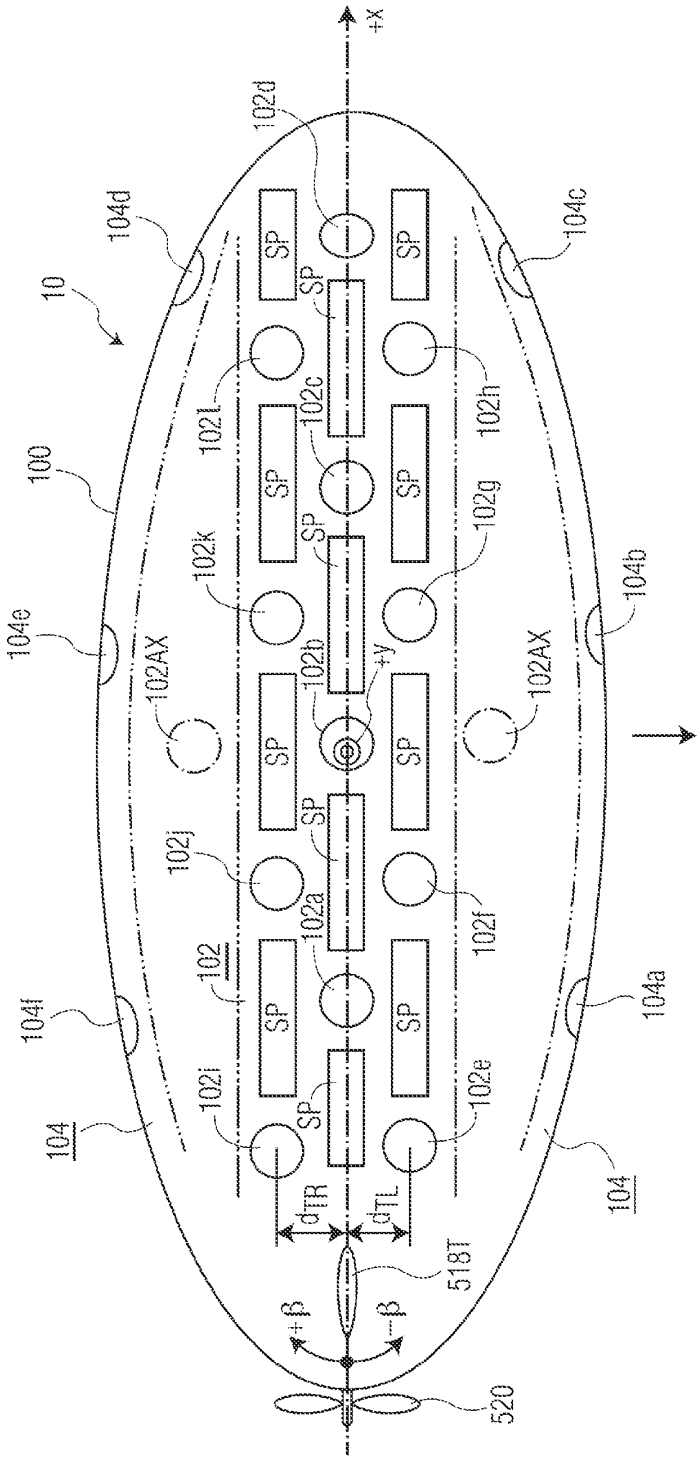


FIG. 2
TOP VIEW

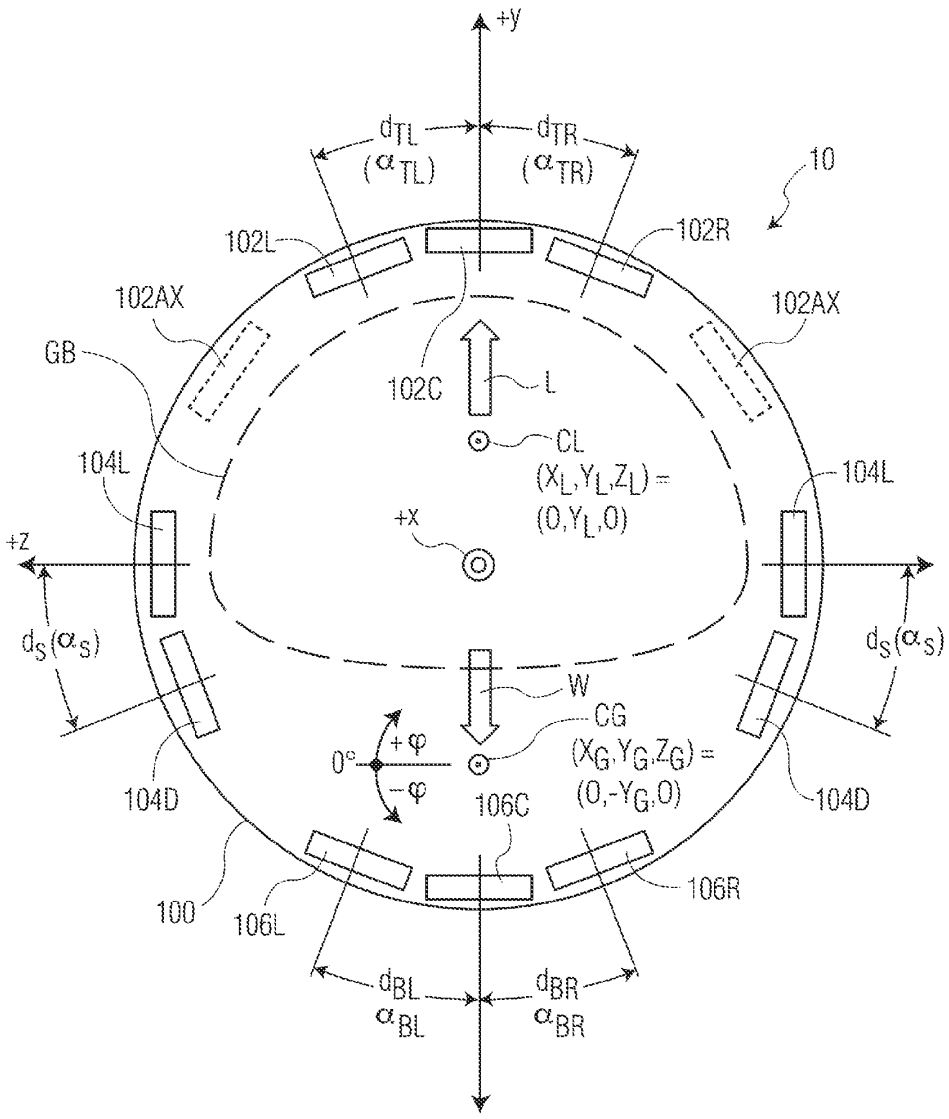


FIG. 3
ANTENNA PLACEMENT

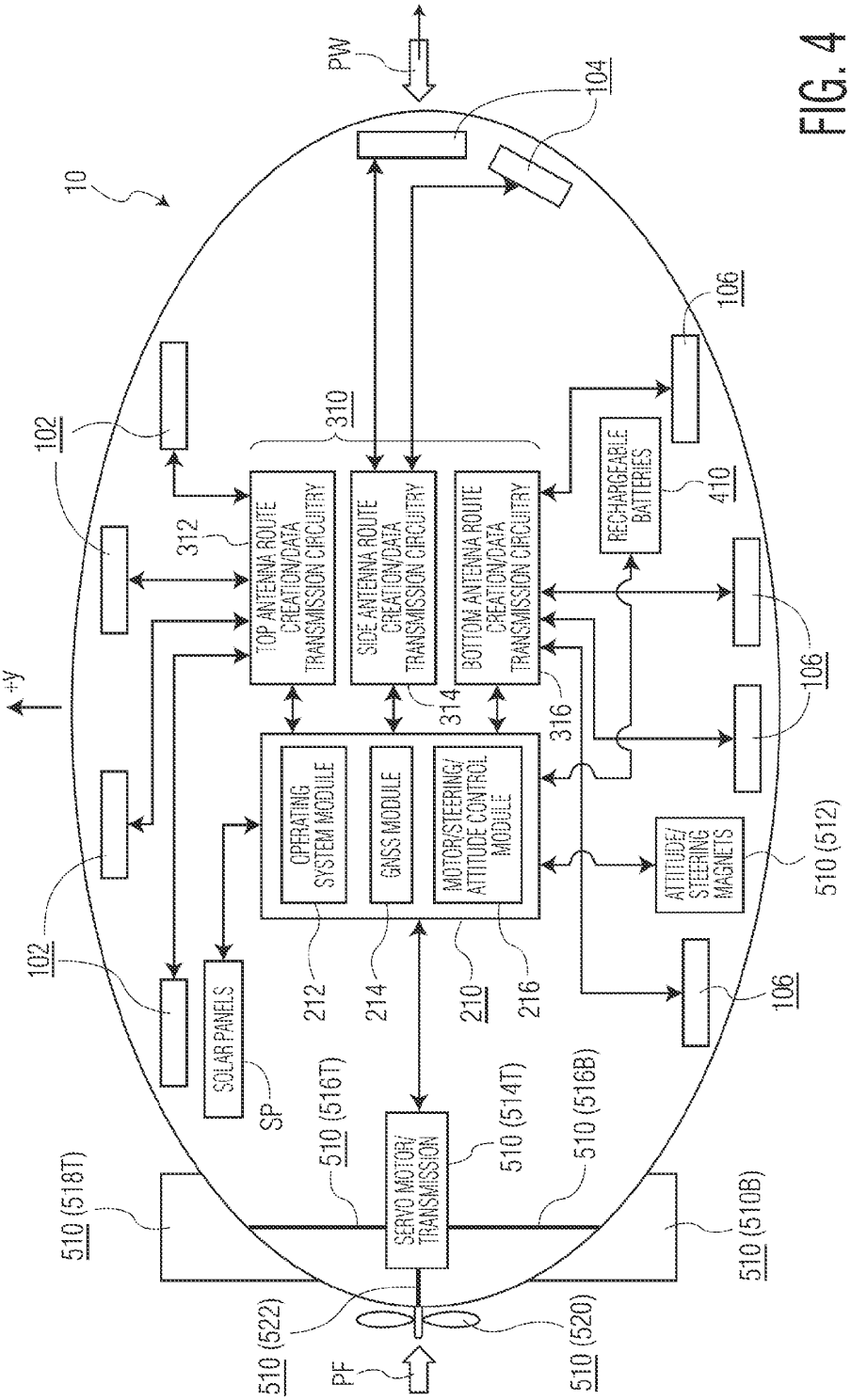

10
PW
104
102
310
312
TOP ANTENNA ROUTE CREATION/DATA TRANSMISSION CIRCUITRY
SIDE ANTENNA ROUTE CREATION/DATA TRANSMISSION CIRCUITRY
BOTTOM ANTENNA ROUTE CREATION/DATA TRANSMISSION CIRCUITRY
314
316
RECHARGEABLE BATTERIES
410
106
+y
OPERATING SYSTEM MODULE
GNSS MODULE
MOTOR/STEERING/ ATTITUDE CONTROL MODULE
212
214
210
216
ATTITUDE/ STEERING MAGNETS
510 (512)
SOLAR PANELS
SP
510 (516T)
510 (514T)
510 (516B)
510 (518T)
SERVO MOTOR/ TRANSMISSION
510 (510B)
510 (522)
PF
510 (520)

FIG. 4

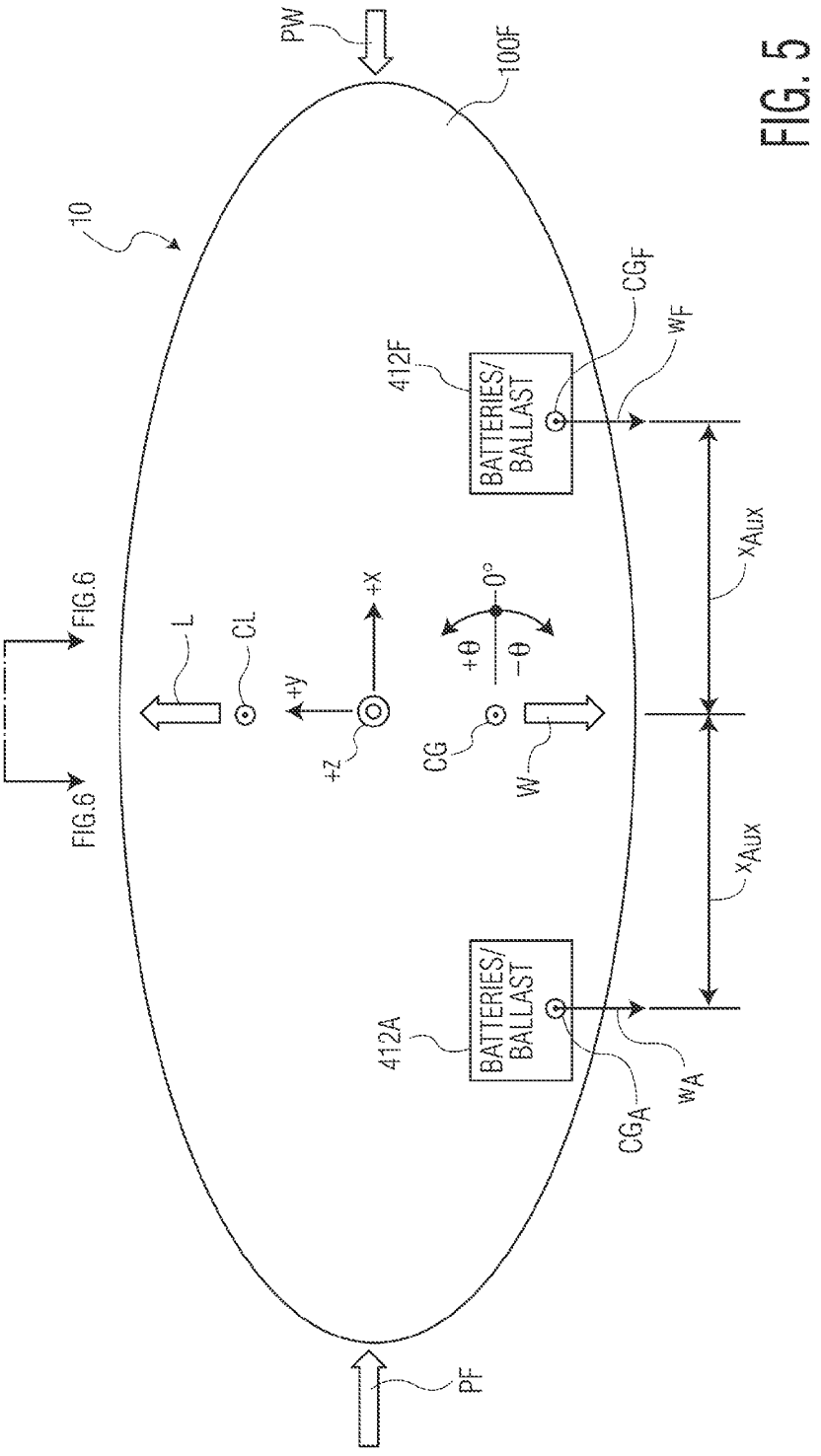

PW
100F
10
412F
BATTERIES/
BALLAST
CG_F
W_F
FIG.6
FIG.6
L
CL
+y
+z
+x
0°
+θ
−θ
CG
W
X_AUX
X_AUX
412A
BATTERIES/
BALLAST
CG_A
W_A
PF

FIG. 5

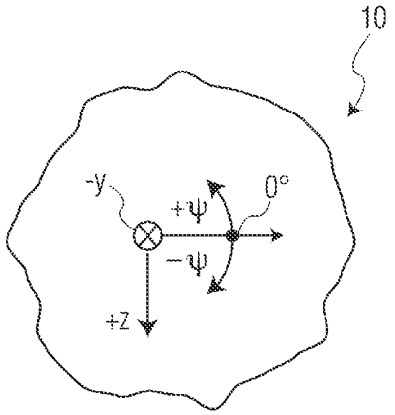


FIG. 6

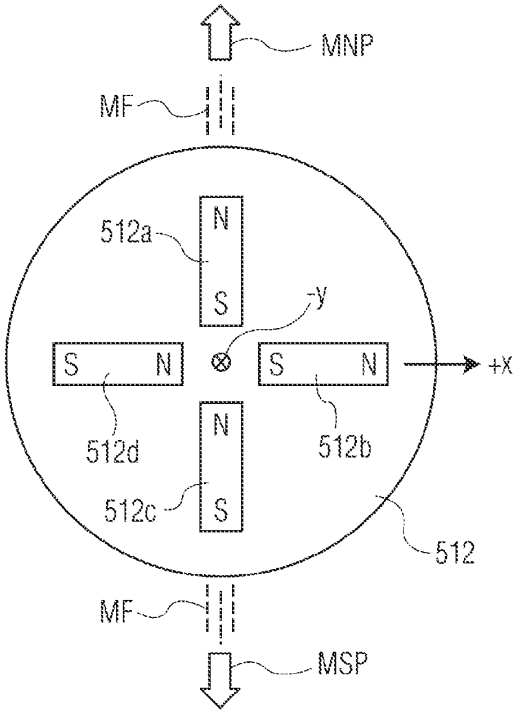


FIG. 7

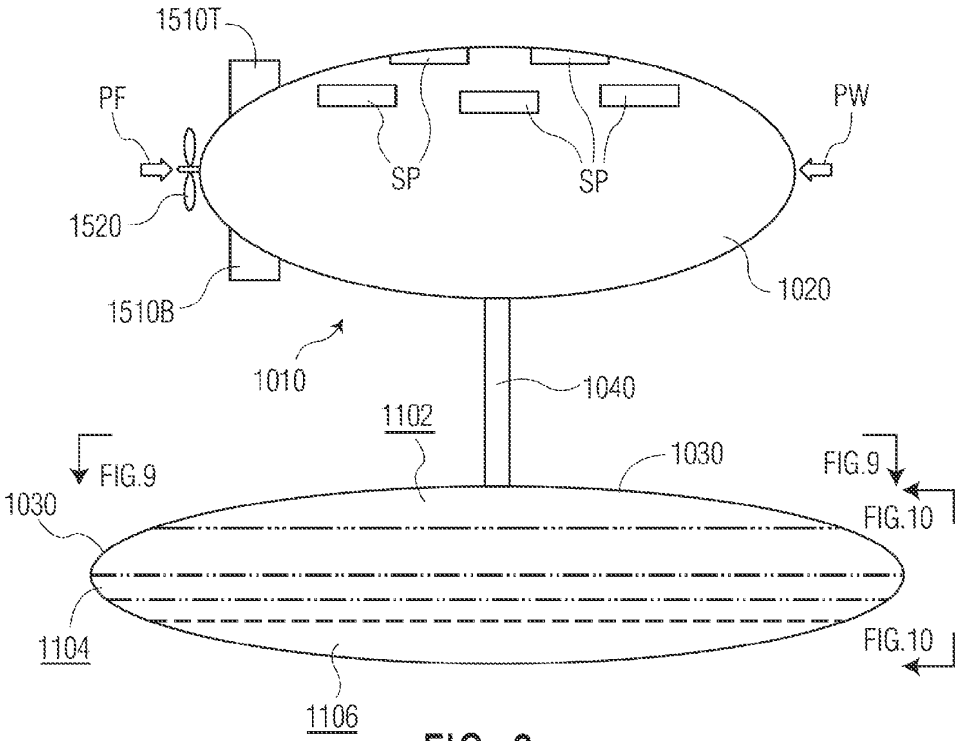


FIG. 8
SIDE VIEW

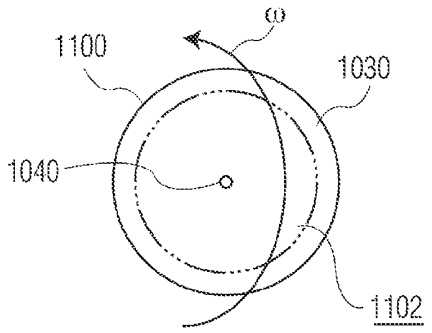


FIG. 9
TOP VIEW

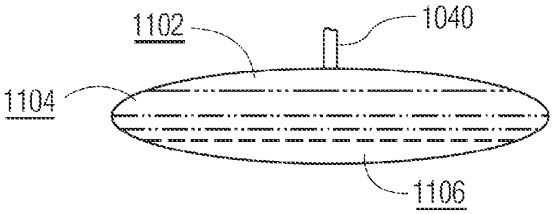


FIG. 10
FRONT VIEW

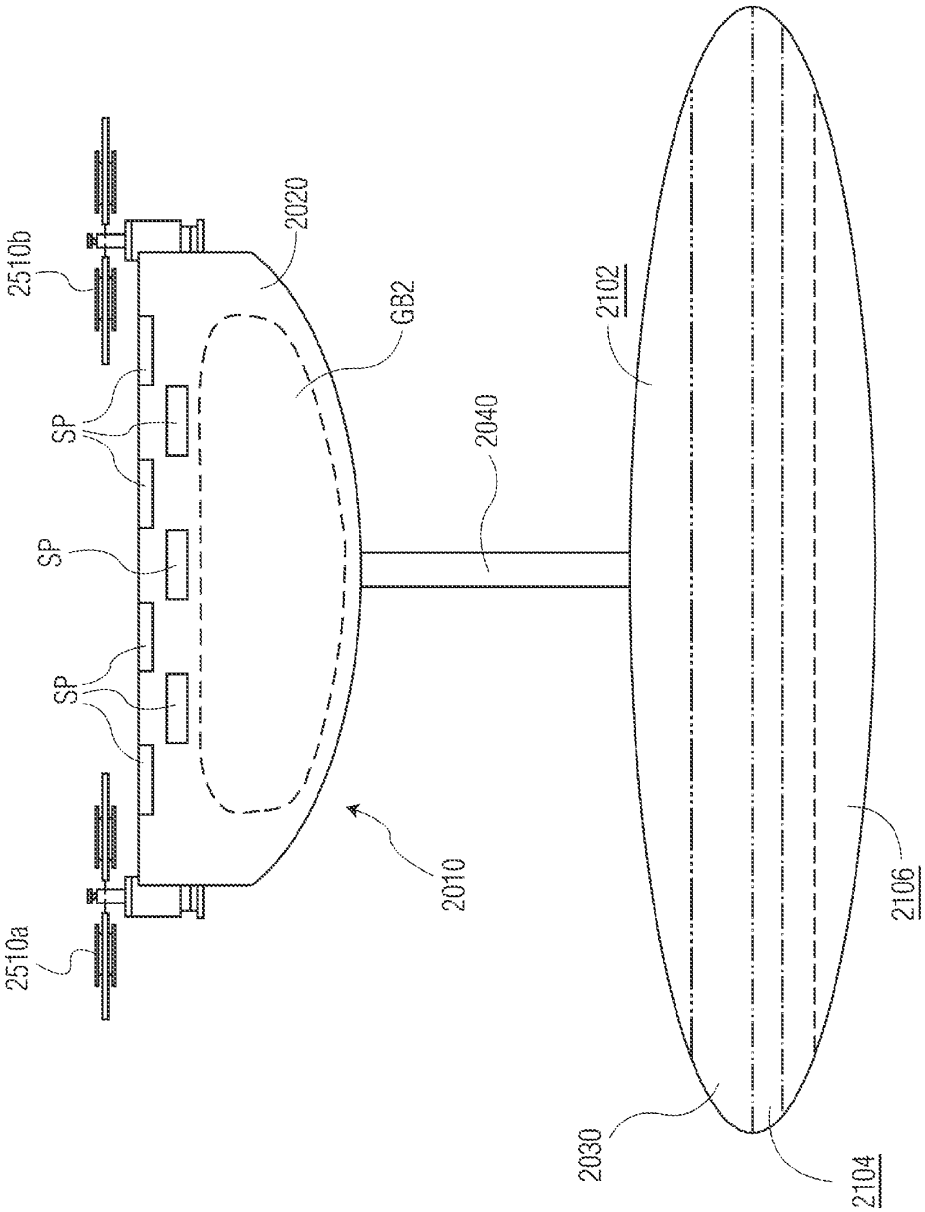


FIG. 11

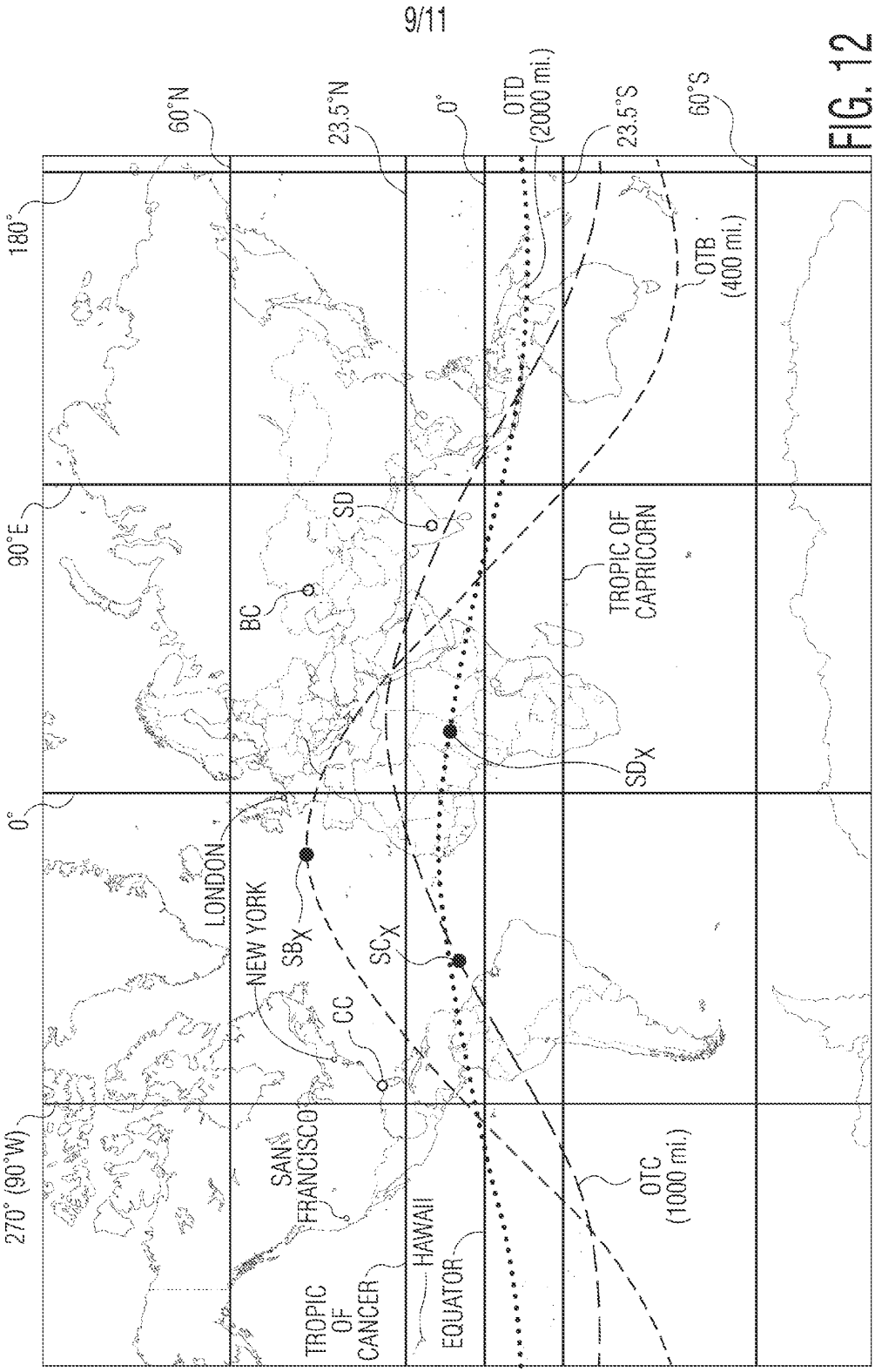

180°
90°E
0°
270° (90°W)
60°N
23.5°N
0°
OTD (2000 mi.)
23.5°S
60°S
OTB (400 mi.)
LONDON
NEW YORK
SAN FRANCISCO
HAWAII
TROPIC OF CANCER
EQUATOR
TROPIC OF CAPRICORN
BC
SD
SB
SC
CC
SD
OTC (1000 mi.)

FIG. 12

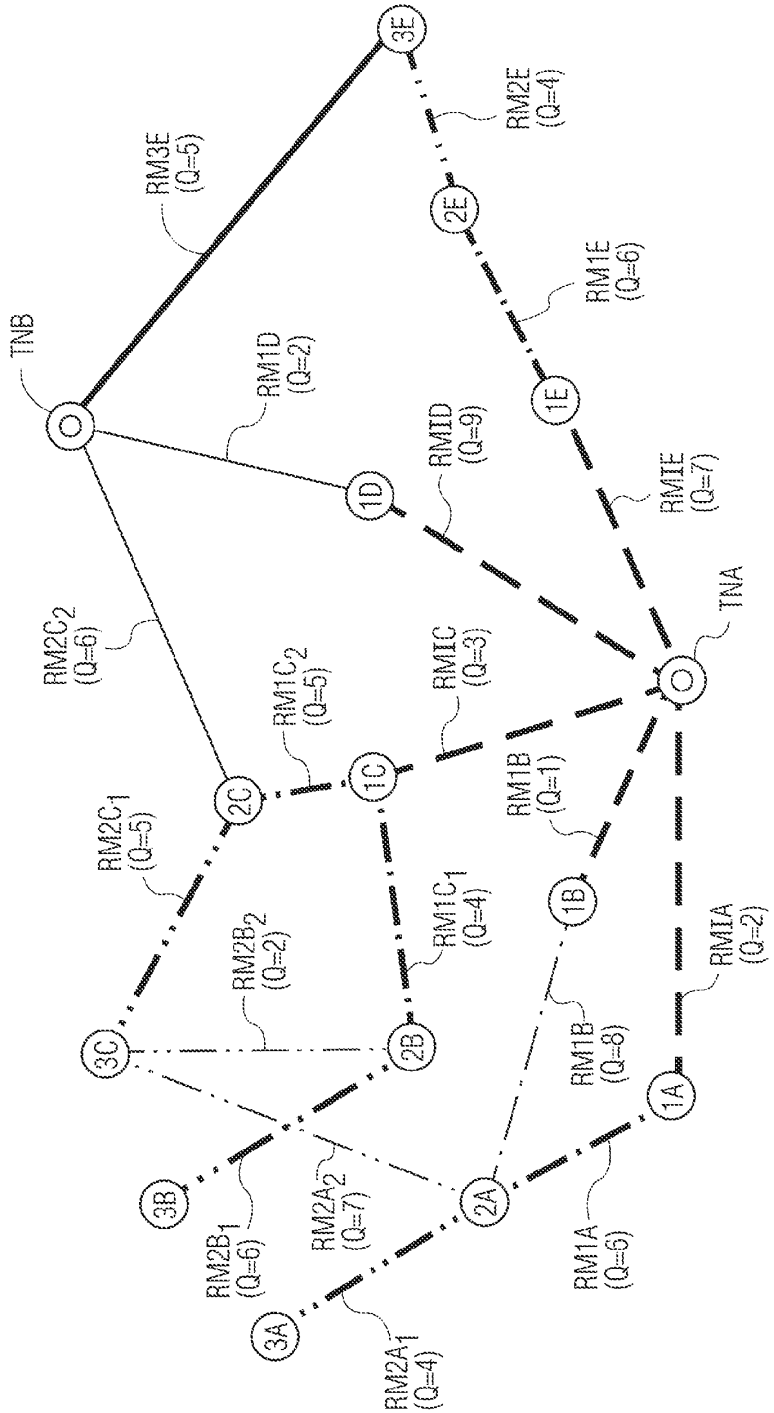

TNB
TNA
3E
2E
1E
1D
2C
1C
3C
2B
1B
3B
2A
1A
3A
RM3E (Q=5)
RM2E (Q=4)
RM1E (Q=6)
RM1D (Q=2)
RM1D (Q=9)
RM1E (Q=7)
RM2C2 (Q=6)
RM1C2 (Q=5)
RM1C (Q=3)
RM2C1 (Q=5)
RM1B (Q=1)
RM1C1 (Q=4)
RM2B2 (Q=2)
RM1A (Q=2)
RM1B (Q=8)
RM2B1 (Q=6)
RM2A2 (Q=7)
RM1A (Q=6)
RM2A1 (Q=4)

FIG. 13

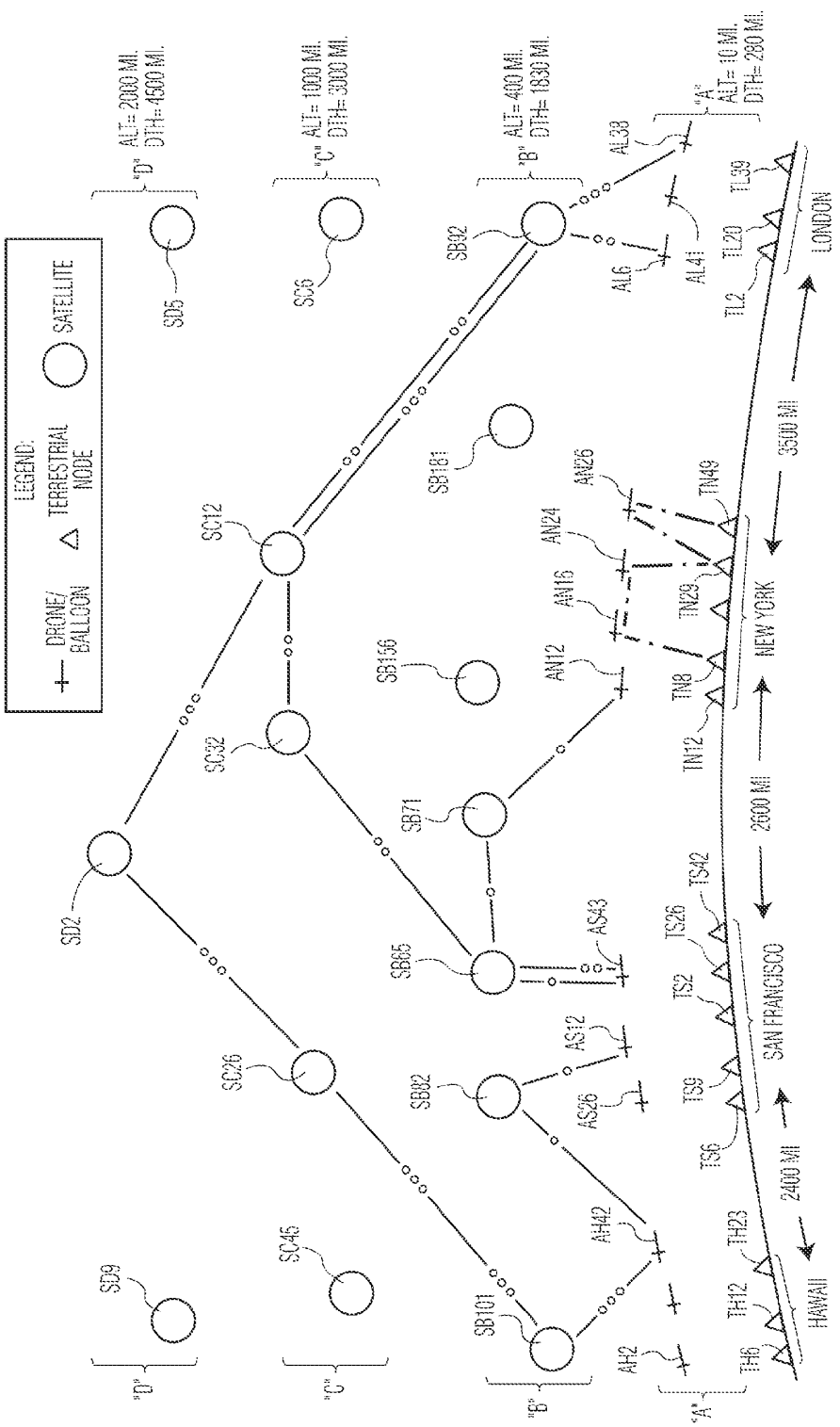

LEGEND:
DRONE/ BALLOON
TERRESTRIAL NODE
SATELLITE
"D" ALT= 2000 MI. DTH= 4500 MI.
"C" ALT= 1000 MI. DTH= 3000 MI.
"B" ALT= 400 MI. DTH= 1830 MI.
"A" ALT= 10 MI. DTH= 280 MI.
SD5
SC6
SB92
AL38
AL6
AL41
TL2
TL20
TL39
LONDON
3500 MI
SC12
SB181
AN26
AN24
AN16
AN12
TN49
TN29
TN8
TN12
NEW YORK
2600 MI
SB156
SC32
SB71
SB65
AS43
AS12
AS26
SB82
SC26
SD2
TS42
TS26
TS2
TS9
TS6
SAN FRANCISCO
2400 MI
SD9
SC45
SB101
AH42
AH2
TH23
TH12
TH6
HAWAII
"D"
"C"
"B"
"A"

FIG. 14