Apollo GX55 SAR Quick Reference Guide

SAR Setup - Basic

1. Press MAP
2. Turn OK CCW to Map Setup Page
3. Press SEL
4. Press RTE to select 'Yes'
5. Press ORI to select 'North'
6. Press REF to select 'Plane'
7. Press ENTER
8. Turn IK CCW to SAR Position Page
9. Press SEL
10. Press LAT
11. Turn IK to '30' (SE corner of nearest 10-deg Grid) for Base Latitude
12. Press LON
13. Turn IK to '80' (SE corner of nearest 10-deg Grid) for Base Longitude
14. Press ENTER
15. Turn IK CCW to SAR Map Setup Page
16. Press SEL
17. Press SAR to select 'On'
18. Press GRD to select 'Basic'
19. Press POS
20. Turn IK to select 'NW'
21. Press ENTER

SAR Setup - US

1. Press MAP
2. Turn OK CCW to Map Setup Page
3. Press SEL
4. Press RTE to select 'Yes'
5. Press ORI to select 'North'
6. Press REF to select 'Plane'
7. Press ENTER
8. Turn IK CCWx2 to SAR Map Setup Page
9. Press SEL
10. Press SAR to select 'On'
11. Press GRD to select 'US'
12. Press POS
13. Turn IK to select 'STL, LUK, MEM, or ATL'
14. Press ENTER

("OK" = Outer Knob, "IK" = Inner Knob)

APPROX MIN/MILE

LAT: 1.0 MIN/MILE
LONG:1.2 MIN/MILE

Track Line Search

1. Press NAV - Press DB
2. Turn OK and IK to Create User Waypoint #1 for Beginning of Line - Press ENTER
3. Turn OK and IK to Create User Waypoint #2 for End of Line - Press ENTER
4. Press FPL - Press SEL - Turn OK and IK to select User Waypoint #1 and #2 for Flight Plan Leg (Do Not Fly 'DIRECT-TO') - Press ENTER
5. Press NAV - Turn OK to 'Parallel Track'
6. Press SEL - Turn OK and IK to select Distance 'S' & Offset Position - Turn OK to 'USE'- Press ENTER
7. Press MAP - Turn IK to select Scale
* Note Heading required to fly Bearing

Example Track Line
(Crosstrack Spacing 'S' Shown)

#1 .... S (Direction of Search) #2
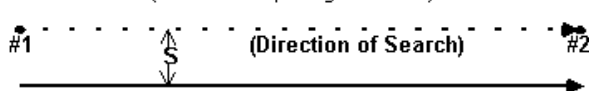
Parallel Line Search - Basic

1. Press MAP
2. Turn OK CCWx2 to SAR Map Page
3. Press PAT
4. Turn IK to 'Parallel Line'
5. Press ENTER
6. Press SEL - Current Grid # Displayed
7. Turn OK and IK to change degrees N & W of Base to SE corner of nearest 1-degree Grid
8. Turn OK and IK to enter Sub-grid and Direction (eg, '48AA3') - Note: Limited to 15x15 or 30x30 Grid
9. Turn OK to 'Spacing'
10. Turn IK to enter Track Spacing
11. Turn OK to 'Direction'
12. Turn IK to enter Corner Dir.
13. Press ENTER
14. Press ENTER
15. Turn IK to eelect Scale
16. Press GRD to View Grid Lines

Parallel Line Search - US

1. Press MAP
2. Turn OK CCWx2 to SAR Map Page
3. Press PAT
4. Turn IK to 'Parallel Line'
5. Press ENTER
6. Press SEL - Current Grid # Displayed
7. Turn OK and IK to change Grid # and Direction (eg, '137A1') - Note: Limited to 7.5x7.5 Grid
8. Turn OK to 'Spacing'
9. Turn IK to enter Track Spacing
10. Turn OK to 'Direction'
11. Turn IK to enter Corner Dir.
13. Press ENTER
12. Press ENTER
14. Turn IK to select Scale
15. Press GRD to View Grid Lines

Example Parallel Line
(Leg Lengths & Track Spacing in Grid Shown)

"Corner Directions" for Parallel Line Search
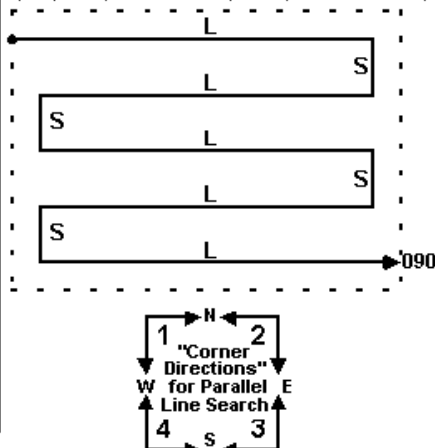
G/S Knots	NM/Min	Sec/NM	Sec/Min Long E/W	Sec/Min Lat N/S	90-deg E/W *	90-deg N/S *
60	1.0	60	49	60	0.26	0.32
70	1.2	51	42	51	0.30	0.37
80	1.3	45	37	45	0.35	0.42
90	1.5	40	33	40	0.39	0.48
100	1.7	36	29	36	0.43	0.53
110	1.8	33	27	33	0.48	0.58
120	2.0	30	25	30	0.52	0.64

* Minutes of Long (E/W @ 40 deg) or Lat (N/S) Required for 90-deg SR Turn

SAR Grid Map Description

TO Waypoint Identifier
Plane Reference Icon
Bearing to the TO Waypoint
Grid Number
Quarter Grid Letter
Map Scale
Distance to the TO Waypoint

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Expanding Square Search

1. Press MAP
2. Turn OK CCWx2 to SAR Map Page
3. Press PAT
4. Turn IK to 'Expanding Square'
5. Press ENTER
6. Press SEL
7. Press ENTER
8. Turn OK and IK to select Waypoint
9. Press ENTER
10. Turn OK to 'Spacing'
11. Turn IK to enter Track Spacing
12. Turn OK to 'Direction'
13. Turn IK to enter Initial Heading
13. Press ENTER
12. Press ENTER
14. Turn IK to select Scale
15. Press GRD to View Grid Lines

Example Expanding Square
(Bearings **TO** Waypoint Shown)

Creeping Line Search

1. Press MAP
2. Turn OK CCWx2 to SAR Map Page
3. Press PAT
4. Turn IK to 'Creeping Line'
5. Press ENTER
6. Press SEL
7. Press ENTER
8. Turn OK and IK to select Waypoint
9. Press ENTER
10. Turn OK to 'Spacing'
11. Turn IK to enter Track Spacing
12. Turn OK to 'Direction'
13. Turn IK to enter Line Direction
14. Press ENTER
15. Turn IK to select Next Page
16. Press SEL
17. Turn IK to enter Leg Length
18. Turn OK to select 'Start'
19. Turn IK to enter Initial Turn as Right or Left of Line
20. Press ENTER
21. Press ENTER
22. Turn IK to select Scale
23. Press GRD to View Grid Lines

Sector Search

1. Press NAV - Press DB
2. Turn OK to 'Create User Waypoint by Lat/Lon' - Press ENTER
3. Turn OK and IK to create User Waypoint by Latitude & Longitude
4. Press ENTER - Press DIRECT-TO
5. Turn OK and IK to select User Waypoint to fly 'Direct To'
6. Press ENTER
7. Press MAP - Monitor Bearing & Distance to fly to Waypoint on an 'Even' Bearing (eg, 270)
8. Begin Search at Distance 'S' from Waypoint
9. Fly Distance 'S' Past Waypoint on same Heading - At Waypoint Passage, Bearing will flip 180-deg (eg, 90)
10. Turn Right ~110-deg and Fly until New Bearing = Old Bearing + 45-deg (eg,135)
11. Turn Right ~110-deg to New Bearing
12. Repeat Steps 8-11 to Complete Coverage
* Note Headings required to fly Bearings

Example Sector Search
(Bearings TO Waypoint on Spokes)
(Interim Headings on Outer Segments)
(Assumes All Right Turns)
(Radius = Distance 'S')

Example Creeping Line
(Leg Lengths, Track Spacing, & Example Headings Shown)

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