

G1000 Beginner's Manual

This manual is a “cheat sheet” for G1000 operation for Seagull-V pilot who is unfamiliar with the high-tech navigation.

Flyingtak1

Seagull-V G1000 Cockpit overview



Please read Garmin official manual or X-Plane online X1000 manual for the detail of the G1000 operations.

G1000 Primary Flight Display (PFD)

Magenta = Future prediction
Green = Active now
White = Not active



G1000 Multi Flight Display (MFD)

From G1000 official manual

1 COM1 MIC 2 COM1
3 COM2 MIC 4 COM2
5 COM3 MIC 6 COM3
7 COM 1/2 TEL 8
9 PA SPKR 10
11 MKR MUTE HI SENS 12
13 DME NAV1 14
15 ADF NAV2 16
17 AUX 18
19 MAN SQ PLAY 20
21 PILOT COPLT
22 CS ISOLATION PILOT PASS 23
24 VOL SQ DISPLAY BACKUP

Display Backup Mode

Figure 1-5 Audio Panel Controls (GMA 1347)

This is not equipped in Seagull-V
It is not available in Plane Maker

Engine Status

Current NAV status for Next Waypoint

Joystick (for map)

Direct to Menu
Flight Plan Procedures
Clear Enter
Dual FMS knob
Input mode (Center button)
Flight Plan Group

SOFT keys for Map

↑other aircraft ↑Night / Day ↑Toggle VFR/ always High/ Low

Engine Status

RPM 2440
FFLOW GPH 9.0
OIL PSI 78
OIL °F 176
EGT °F 1009
VAC
FUEL QTY GAL 25.5
ENG 0.5 HRS
-ELECTICAL-
M BUS E 26.5
M BATT E +0.0 AMPS +0.0

NAV Status

NAV1 116.85 ↔ 112.20 HME
NAV2 115.00 111.70 IHA
NAV - DEFAULT NAV

Navigation Data

GS 115KT DTK 128° TRK 124° ETE 6:01
121.500 ↔ 121.900 COM1
121.500 136.775 COM2

Map

RJTY YOK
RJTC
RJTF
RJTR
RJTT HME

TRAFFIC TOPO TERRAIN AIRWAYS NEXRAD BACK

Flight Plan input process

Example for practice

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Preparation for input (on MFD)

On **MFD**, Push **CLR** key (return to the Default Map)
Push **FPL** key (pop up the last flight plan), then push **MENU** key.
By **FMS outer rotary knob**, select “**Delete Flight Plan**”
Push **ENT** key (activate the input)

Set Departure

In Active Flight Plan page, **Departure / Arrival** are the airport now.
Push **center of FMS** key (turn to the input mode)

Set Waypoint (s)

By **FMS rotary knob**, input the first **waypoint**.
By **inner FMS rotary knob**, Choose the first alphabet of the waypoint ID.
By **outer FMS rotary knob**, move to the next box, Choose the second alphabet.
Push **ENT** key a few times until activate the input on all pages)

Set Arrival

The cursor move to the next line automatically, **Input the destination airport**.
By **FMS rotary knobs**, input the destination ID, same way as above.

Input SID (departure)

Push **PROC** , turn **outer rotary of FMS** knob, select “**select departure**”
Select **departure method and runway** as you wish. Push **Ent** key to Load.
Load? G1000 ask. Push **Ent** key to Load. The course is displayed on the map.
Transition was asked, select the point you planed.

Input STAR (arrival)

Push **PROC** , turn **outer rotary of FMS** knob, select “**select arrival**” then **ENT**.
Select **arrival method** as you wish. Push **Ent** key to Load.

Input Approach (landing)

Push **PROC** , turn **outer rotary of FMS** knob, select “**select approach**” , then **ENT**.
Select **approach method (such as ILS)** as you wish. Push **Ent** key to Load.
Transition was asked, select “**vectors**”. Push **ENT** key to **Load**.
Here you can input the minimum altitude (for voice call), or ILS frequency, etc.
If you select “activate”, the course will be direct to this approach.

Input VNAV Altitude (VNAV is usable from v.11.20b, descent only)

Push **FPL** at Flight Plan page, input **waypoints altitude** by **FMS dual knob**.
On flight plan list, white letter ALT is not active. When you enter the ALT, it turns Blue.

CHECK the Flight Plan before your flight

In input mode, click **FMS center button**, check **each legs and the connection**.
Edit **flight plan** and make it smooth and economy course for your safety flight.
If there is disconnection, you can use **Direct** key at the point to the next waypoint.

Set the flight level Altitude (on PFD)

By **ALT knob**, set the **altitude** you planed. Set QNH (ex.29.92) by **Baro knob**

Set CDI information source

Push **soft key CDI**, select **GPS**.

Set ILS frequency on NAV1

By **NAV knob**, set the **ILS frequency in NAV1 standby**. (For activate, push **←→** key)
You can tune frequencies by one touch from X-Plane map. Click the airport icon or ILS, VOR etc.

Set Transponder

Push **soft key XPDR**, input **4 digits** by **CODE** key. Then **Back**. Push **STBY**.
When you fly VFR, push VFR key for 1200.

Automatic Flight process

Activate transponder before enter the runway

Set **transponder active**, push **XPDR** key and push **ALT soft key** to activate & indicated **ALT**.
Set **Timer and start** by **TMR/ REF soft key** and **ENT**. Now you start.

Take off manually

Set Auto Pilot (use AP at stable attitude)

Push **AP** key (to maintain pitch and roll attitude at the time) when the plane became stable.
Push **FD, NAV** on (show Flight Director, fly with NAV mode) for **GPS** navigation engage.
Choice **GPS** for **CDI** (Automatic flight by GPS along the flight plan, in lateral direction)
Check AP status on the center top window. Left box is for lateral, Right box is for Vertical.

Climb with Auto Pilot VS mode

Push **VS** key and push **Nose UP or DN**, to tune the **rate of climb**. (ex. +500 ft/m)
Be careful about airspeed and stall. Throttle and speed control should be controlled by pilot.

Cruise with GPS

When aircraft reached the target altitude, it go to level flight automatically. (ex. **ALT 5000ft**)
Cross check Navigation status & Engine status such as EGT for mixture lean.
Indicated Air Speed will be smaller number than true, if the air density become low.
TAS is converted number to the true air speed.

Set Approach

By **PROC** key, **Activate approach** you planed, or set **new approach** in the situation.
By **FMS** key, **select runway** and set **minim, Load new approach**.
Set decent **altitude of waypoints** by **FMS** key as you wish.

Check approach chart

Set ILS frequency (You can set frequency, one touch from X-Plane map.)

Push **NAV1** key, and make it active by **↔** key.
For morse audio confirmation, push **NAV1** key on audio panel.

Example for practice

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Check VNAV setting

Push **FPL** and see **VNV PROFILE**, check the descent setting for next waypoint.
Descent angle can be input by **VNAV PROF soft key** and **ENT**.

Descent with VNAV

Set **Altitude of Auto Pilot** by **ALT knob**.
If you set lower than flight plan ALT, The aircraft levels off at planed higher Altitude.
Push **VNV** key. Vertical Path Tracking (**VPTH**) mode indicated on the status box.
You can know the time till **TOD** (top of descent) on VNV profile box.
If you descent now, descent speed is indicated on VS REQ box of flight plan (MFD)
Glide-path indicator “<” shape coming down. Soon you will reach **TOD**.

Descent start

ALTV (VNV target altitude capture) is indicated, It will level off at planed altitude.
ALTS (selected altitude capture) means AP altitude is higher than flight plan ALT.
Estimated time till BOD (bottom of descent) is indicated in VNV profile box.

Reach to the last point of descent (BOD) , it will be level off.

Final Approach (ILS navigation)

Select **Activate Approach**, by **FMS outer knob** and arm by **ENT** key.
Check VNAV information in VNAV profile box.
Soon you will reach the final approach **fix. (faf)**. ILS frequency turned green automatically.
“**G**” is on the top of the glide-slope indicator, if you are on the approach course.
NAV source is also changed into **LOC 1** on **CDI** automatically.
Push **APR key of Auto Pilot**, make it **autopilot approach mode**.
When the glide-slope indicator **◆** start moving down, **GS** is armed on AP status.
Now you are on the final approach, Control air speed and touch down safely.

Go-around

Cut off AP mode, push **SUSP soft key**. Activate **missed approach**. (below minimum)