

## Presentation Outline

3/11/09

Date presented \_\_\_\_\_

Subject: Mission Observer C182T NAV III Tasks

Object: Provide hands-on training for MOs in certain critical tasks they will need to be able to perform in the C182T NAVIII aircraft.

- This is beyond the topics covered in the normal MO/MS training classes.

Points: Give an overview of a task during JKSS meetings, then perform the task in the a/c (using ground power). Small groups in a/c to allow hands-on for each person.

- Overview to use G1000 simulator (projected) where possible.
- A list of tasks to be covered will be provided. (Minimum reqmnts.)
- Obtain an instructor sign-off on the list for each task learned.

General info:

1. Info will be presented. Your responsibility to learn (and retain) it.
2. Your responsibility to get sign-offs on the task list.
3. You should start and maintain a personal "operations notebook" containing your notes on each task, plus any handouts that are provided.
  - Format should be something you can bring on a sortie, and use in flight.

## Mission Observers: C182T NAV III Task Capabilities Required

NAME \_\_\_\_\_  
Trained by \_\_\_\_\_ Date \_\_\_\_\_

### Equipment

Audio panel

CAP radio

Becker ELT DF

SDIS

### G1000

DIR TO

NRST

Set up map (via Menu)

Chg fields top of MFD

Display and read lat/long

Display Traffic/NEXRAD/METARs & TAFs

Obtain airport info (also from A/FD)

Use fuel mgmnt tools

Set up WYPTs

Mark an "on-top" and display it on MFD

Use joystick (ID displayed items/measure distance & brg .....).

### General

Move a/c out of and into hgr

Assist in pre-flight and securing a/c

## Presentation Outline

3/18/2009

Date presented \_\_\_\_\_

Subject: GPS Nav Controls Overview

Object: Familiarize personnel with the GPS nav keys and knobs in preparation to introducing detailed specific nav functions to be performed on the MFD.

Topics: Project image of the GPS nav section of the MFD, and describe the following:

### 1. Keys and knobs

- Direct-to key                      To actuate a nav course from present position direct to a position you enter into the unit.
- Menu key                              Presents a list of options you can select. Specific list depends on where in the system you are when pressed. Some options will be intuitive as you become familiar with the system. E.g. if navigating direct-to, and you want to cancel it, that option will be listed.
- FPL                                      PILOT OPERATED
- PROC key                              PILOT OPERATED
- Clear key                              "Get-out-of-school-free" key. Wherever you are in the system, pressing this a couple seconds will bring you back to the main map view.
- Enter key                              Like ENTER on a computer.
- Large knob                            Some uses:
  - select "Groups" MAP/WAYPT/AUX/WAYPT
  - move the cursor from one position to another
- Small knob                            Some uses:
  - select "Pages" within each of above groups
  - activate the cursor (by pressing)
  - make a selection within the cursor field

### 2. Groups

- MAP                                    map displays
- WAYPT                                airport and waypoint info
- AUX                                    system-type info and lat/long display
- NRST display nearest airports, VORs, waypoints, etc.

### 3. Pages Display various types of info within each group. E.g. for the

NRST group, rotating the small knob will bring you to each of the following pages:

- nearest airport
- nearest intersection
- nearest VOR
- nearest NDB
- nearest user waypoint
- nearest frequencies
- nearest airspaces

4. The best way to learn the pages for each group is to make notes as you rotate through them in the aircraft or on a simulator. You can download for free a simulator from the Garmin site [www.Garmin.com](http://www.Garmin.com) > In the Air > Avionics and Safety > GPS/NAV/Comm > GNS 430W > freebies > Download simulators. (This will get you the GNS 430 simulator, not the G1000, which is not free and won't run on many computers. There will be some differences, but they are close enough for this purpose to give you the idea.)

## Presentation Outline

3/18/2009

Date presented \_\_\_\_\_

Subject: MFD Overview

Object: Familiarize personnel with MFD key, knobs, and basic display in preparation to introducing detailed operation of specific controls.

Points: Project image of MFD, and point out location of the following, starting at upper left:

1. VOR/LOC navigation controls
  - volume/ID
  - flip-flop
  - frequency select
  - frequency display
2. Navigation status bar and Active Group/Page display
  - related to GPS navigation controls (# 7 below)
3. COMM controls
  - volume/squelch
  - flip-flop
  - frequency select
  - frequency display
4. Wind display and map orientation
5. Course/barometer setting (dual knob) PILOT OPERATED
6. Range knob/Joystick and range display

7. GPS navigation controls

- Direct-to key
- Menu key
- FPL key      PILOT OPERATED
- PROC key     PILOT OPERATED
- Clear key
- Enter key
- Large/Small knobs (concentric)
- Group/page display (MAP/WAYPT/AUXILARY/NRST)

8. Soft keys and function blocks

- display symbol

9. Altitude select              PILOT OPERATED

10. Heading knob                PILOT OPERATED

11. Engine indication system MOSTLY PILOT INTEREST

## Presentation Outline

3/18/2009

Date presented \_\_\_\_\_

Subject: GPS Direct-to nav

Object: To actuate a nav course from present position direct to a position to enter into the unit.

Method: Example: Completing a grid search, and want to navigate directly back to HFY. (Your present position does not need to be known.)

1. Press the DIR TO key
  - The MFD will display a DIR-TO window with the destination field highlighted.
2. Turn small knob to select the first letter ("K" for airports whose identifiers are all letters)
3. Turn large knob to move the cursor to the second position
4. Turn small knob to select the next letter ("H")
5. Continue large knob-small knob thru "F" and "Y"
6. ENTER - ENTER (the first time confirms what you've selected, and the second time actually activates what you've selected-like a double click on your computer)
  - A magenta line will appear on the map going from your present position to HFY.