# NIKON D7200 [W/SOLMETA GMAX GPS] ADVANCED CHECKLIST





The following FULL sequential setup checklist is appropriate for Civil Air Patrol daytime aerial photos using the Nikon D7200 DSLR with a Sigma (or Nikon) 200mm zoom lens and a Solmeta GMAX GPS. [Aircraft track can be captured can by the Bad Elf GPS or the Solmeta GMAX GPS]. Items noted as [ADVANCED] are **OPTIONAL**, but recommended.

#### 1-CHARGE AND/OR CHANGE THE BATTERIES FOR

- -Camera-EN-EL15 Battery
- -Battery Pack MB D-15-EN-EL15 Battery and/or AA Alkaline (if used)
- -[See **Note 1** if non-Alkaline batteries are used]
- -GMAX GPS (Internal battery)
- -Bad Elf GPS (Internal battery), if used.

### 2-ASSEMBLE (AND CLEAN IF REQUIRED) ALL THE PARTS

- -Camera Body
- -Neck strap
- -MB-D15 Multi Power Battery Pack (if used)
- -Lens (or lenses)
- -Lens UV Filter
- -Lens Cap(s)
- -SD Media Cards-1 for each slot (2 total)
- -Solmeta GMAX GPS
- -GPS to Camera Cable (secure with blue painters' tape if required)
- -NO lens hood (For aerial work)
- -Bad Elf Tracker, if used

#### 3-SET THE SWITCHES ON CAMERA BODY AND LENS

- A) Set Camera Body switches including
  - -Focus selector lock-White dot on L
  - -Live view selector-White dot on still camera position
  - -Focus Mode selector-White line on AF position
- B) Set Lens Switches
  - -Lock switch to Unlock
  - -AF/M switch to AF (autofocus)
  - -OS switch to ON (vibration reduction)
  - -Normal/Active switch to Active (if Nikon lens)

#### 4-TURN CAMERA POWER SWITCH TO ON

#### 5-SET UP CAMERA VIEWFINDER (DIOPTER)

- A) Use diopter adjustment control for your eye
- B) Press shutter button to check for focus point [REVIEW]

#### 6-SET CAMERA ITEMS NOT AFFEECTED BY DEFAULTS - Use A, B, C OR D

- A) Rotate Exposure Mode Dial to S (Shutter Priority)
- **B)** Rotate **Main Command Dial** to **2500** to set shutter speed to 1/2500. [OPTIONAL] Put **blue tape** over dial to hold dial in place. If low light, see **Note 2**.
- C) Rotate Release Mode Dial to S (single frame). For continuous release see Note 3.
- **D)** Check/Set Playback Display

[Menu > Playback Display Option > Check/Set Focus Point, None and Overview. All others are unchecked. Note that the GPS screen will appear automatically with GPS attached.

# 7-SET CAMERA DEFAULTS (3 TOTAL)

A)-Set Two Button Defaults

[Simultaneously press and hold Two Green Buttons until monitor flashes]

B) Set Shooting Menu Defaults

[Menu→Shooting Menu→Reset Shooting Menu→OK→Yes→OK]

C) Set Custom Settings Defaults

[Menu $\rightarrow$ Custom Settings Menu $\rightarrow$ Reset Custom Settings  $\rightarrow$ OK $\rightarrow$ Yes $\rightarrow$ OK]

#### 8-CHANGE CERTAIN CAMERA DEFAULTS

A) [ADVANCED] Change autofocus mode to AF-C (Continuous Focus) and AF-Area to D9 (Nine center clustered focus points),

[Press autofocus button on front left of camera body. While holding button down, rotate Main Command Dial (back) until AF-C appears in top screen. Rotate Sub Command Dial (front) until D-9 appears. Remove/replace blue painters' tape as required]





B) Change Image Quality to JPEG Fine

[Menu→ Photo Shooting Menu→Image Quality→OK→JPEG Fine→OK [See Note 4 if Client requests RAW images]

**C)** [ADVANCED]-Change JPEG Compression to Optimum [Menu→Photo Shooting Menu→JPEG Compression→OK→Optimal Quality→OK]

**D)** Change ISO Sensitivity to ON, with certain settings [Menu $\rightarrow$  Photo Shooting Menu $\rightarrow$ ISO Sensitivity Settings $\rightarrow$ OK $\rightarrow$ Auto ISO Sensitivity $\rightarrow$ Auto]

E) Change Monitor Off Delay to 5 Minutes  $[Menu \rightarrow Custom Settings Menu \rightarrow C4 Monitor Off Delay \rightarrow Menus \rightarrow OK \rightarrow 5 min \rightarrow OK]$ 

F) [ADVANCED] Show Viewfinder Grid  $[Menu \rightarrow Custom Settings Menu \rightarrow D7 Viewfinder Grid Display \rightarrow OK]$ 

# 9-FORMAT THE CAMERA MEDIA CARDS (2 TOTAL)

A) Format Card #1 [Menu $\rightarrow$ Setup Menu $\rightarrow$ Format Memory Card $\rightarrow$ OK $\rightarrow$ Slot 1 $\rightarrow$ OK $\rightarrow$ Yes $\rightarrow$ OK]

B) Ditto for Card #2

# 10-SOLMETA GMAX SETTINGS AND CALIBRATION (IF REQUIRED) [See Note 5]

# 11-BAD ELF SETTINGS AND CALIBRATION (IF REQUIRED)

[See Note 5]

#### 12-CHECK SETTINGS AND OPERATIONS/TEST SHOTS

A) Go outside and check for proper exposure (check exposure bar and histogram), focusing (white dot) and GPS acquisition (check for GPS screen with data).

IF OK, SETUP IS COMPLETE

#### **NOTES**

**NOTE 1**-If using non-Alkaline batteries with the MB-D15 Battery Pack, the following setting changes are required.

1) Change Custom Setting D12 to HR6 (AA Ni-MH) or FR6 (AA Lithium) as applicable. Change as part of Section 8 of the checklist.

**NOTE 2**-If low light prevents proper exposure, a shutter speed as low as 1/1000 may be used. Use appropriate techniques to minimize motion and vibration blur. OK to adjust in flight.

**NOTE 3**-Continuous release CL or CH may be appropriate for certain targets. OK to adjust in flight.

**NOTE 4**-If the Client requests RAW images to allow for post processing, make the following changes.

- 1) Change Shooting Menu item **Role played by card in Slot 2** to RAW Slot 1+JPEG Slot 2 [REVIEW IF THIS HAPPENS AUTOMATICLLY]
- 2) Change Shooting Menu item Image Quality to NEF (RAW)+JPEG Fine
- 3) Change Shooting Menu item Color Space to Adobe RGB

**NOTE 5**-See User manuals for both the Solmeta and Bad Elf GPS. If resetting the Solmeta GMAX, use defaults. There is an APP for the Bad Elf. [NEED MORE DETAILS IN THIS NOTE]

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