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NS430 Voice attack profile v2.0 DCS-BIOS by Jordie/Jonsky7

**IMPORTANT – installation instructions are at the end of this document.**

This profile is not all encompassing and does have limits based on the units function, but you will be able control the NS430 completely by voice.

**Control commands** (presses all the required buttons on the NS430 unit

All instances of **NAV** below can also be replaced by **GPS**, **Navigation**, or **SATNAV**

Buttons	Spoken command
Opens and closes the NS430 pop up window	NAV open / NAV close
Runs a power up routine to ready status	NAV Power on / NAV On
turns the volume knob clockwise for 0.3 second	NAV power clockwise or Nav volume up
CDI button	NAV CDI
OBS button	NAV OBS
Opens the messages for 2 seconds and closes	NAV Messages
FPL button	NAV Flight Plan
PROC button	NAV Procedures
Range down arrow button	NAV Range down or NAV Zoom
Range up arrow button	NAV Range up or NAV Zoom Out
Direct button button	NAV Direct
Menu button	NAV Menu
CLR button	NAV Clear
Presses CLR for 2.1 seconds to return to Dev page	NAV Clear Long
Enter button	NAV Enter
Rotates the Right outer dial anti-clockwise one notch	Outer Left / big left / BACK
Rotates the Right outer dial clockwise one notch	Outer Right/ big right / NEXT / Skip
Rotates the right inner dial one notch anti-clockwise	Inner / Small Left / Down 1
Rotates the right inner dial one notch clockwise	Inner / Small Right / Up 1
Pushes the right small knob	Small push / right small push

**All of the Rotary dial commands can be followed by numbers 1-9**

For example "OUTER LEFT 3" will rotate the outer rotary anti-clockwise 3 notches

### **Actions**

Show / Hide NS430 Pop-up Window	Open/Close/Show/Hide NAV
Power on/ Power Off	NAV power on / NAV power off
Advance waypoint (must have FPL open)	Activate Next Leg
Previous waypoint (must have FPL open)	Activate Previous Leg
Returns to NAVdev screen	Cancel
Direct-to and Waypoints	See page 3 below
Direct to Airport	Direct to *Airport Name*
Text to Speech readbacks on/off	Speech on/off
Sounds On/Off (for dings)	Sounds On/Off
Set up Data Fields	See page 4 below

## PAGES

Any page can be accessed by one command, please read the NS430 manual for page functions.

*Please note that every page request starts with a cancel/long clear command that takes 2 seconds to complete. This is to ensure that every page request works no matter where in the system you are.*

Recommended command in bold

### NAV PAGES

Page	Spoken Command
NAVdef	NAV def / <b>NAV Deviation</b>
NAVmap	<b>NAV Map</b> / NAV Map page
NAVterr	<b>NAV Terrain</b> / NAV Terrain page
NAVcom	<b>NAV Com</b> / NAV frequency / NAV Com page
NAVpos	<b>NAV position</b> / NAV pos page
NAVsat	<b>NAV sat</b> / NAV satellite / NAV sat page
NAVvprof	<b>NAV Vertical</b> / Nav Vertical Page

### WPT pages

WPTero or WPTapt	<b>Waypoint airport</b> / Waypoint airport page
WPTrunway	<b>Waypoint runway</b> / Waypoint runway page
WPTfreq	<b>Waypoint frequency</b> / Waypoint frequency page
WPTapr	<b>Waypoint approach</b> / Waypoint approach page
WPTarr	<b>Waypoint arrival</b> / Waypoint arrival page
WPTdep	<b>Waypoint departure</b> / Waypoint departure page
WPTint	<b>Waypoint intersections</b> / Waypoint intersections page
WPTndb	<b>Waypoint N D B</b> / Waypoint N D B page
WPTvor	<b>Waypoint V O R</b> / Waypoint V O R page
WPTuser	<b>Waypoint User</b> / Waypoint user page

### AUX pages

AUXfpl	<b>Flight Planning</b>
AUXutil	<b>NAV utilities</b> / aux utilities / aux procedures
AUXsetup 1	<b>NAV setup</b> / NAV setup page / aux setup / aux setup pge
AUXsetup 2	<b>NAV setup 2</b> / NAV setup page 2 / aux setup 2 aux setup page 2

### NRST pages

NRSTarpt	<b>Nearest Airport</b> / Nearest Airport page / closest airport
NRSTint	<b>Nearest Intersection</b>
NRSTndb	<b>Nearest N D B</b>
NRSTvor	<b>Nearest V O R</b>

### Quickly create WAYPOINTS and enter DIRECT-TO points, and Go-to ANY airfield/airport

*For text entry you can say letters and numbers which will scroll the rotary knobs the required number of times to enter the letter or number said. For example saying "D" will scroll the Right Inner knob clockwise by 4 notches.*

*It is important that the field being entered into is in the correct start position, that is either a flashing \_ or +.*

*You can say for example "Delete 3" or "delete Tango" to reset the cursor to the start position.*

*I have found that it works reasonably well for entering direct-to points, and creating new user waypoints if these instructions are followed.*

*For letters you may also use the NATO phonetic alphabet, Alpha, Bravo, Charlie etc,*

*Numbers will be read back to you by text to speech. This is helpful for entering waypoints which will be shown in the demo video.*

**DIRECT-TO** points are waypoints already in the system with an identifier, an airport, NDB, VOR, or an already stored user waypoints are examples of direct-to points.

1. Say "**Direct to**" or "**Direct**", this should open the direct-to page with blank entry boxes, the cursor should be flashing on the first digit of the first line
2. You can now enter the characters of the identifier for the airport or waypoint by saying a letter of the alphabet or number which will enter the character and move the cursor to the next digit.
3. Once you have entered the required digits say "finish" or "engage" which starts the direct to navigation.

*From version 1.5 you can go direct to **any** airfield, ie "**Direct Anapa**" will automatically enter the ICAO code in the Direct-to page*

**USER WAYPOINTS**, are locations we want to fly that do not have an identifier, and they are setup by entering LAT/LONG co-ordinates.

- 1 Say "**User way point**" this should open the user waypoint menu with the cursor flashing on the first digit, either \_ or W (W is shown if a waypoint was used in the mission editor eg WPT1)
- 1a **If WPT1** is showing, you can say "**New waypoint**" (this will only work for WPT1-9) which should set the first digit from W to + , or the delete character method can be used as mentioned earlier.
- 2 Give your waypoint an identifier by saying letters of the alphabet or numbers 0-9, up to five characters
- 3 Say "**Position**" this will move the cursor to the second digit of the north co-ordinates, no LAT coordinate can be above 90
- 4 You may either repeat the number already entered, or say "**next**" to skip to the next number
- 5 At the end of the north co-ord entry, say "**step**" this will move the cursor to the second digit of the East/West co-ordinate, the first digit will not need to be changed on all current maps.
- 6 Say "**Create**" or "**Modify**" or you can say "**finish**" to complete the waypoint entry. You may now enter the identifier of your newly created waypoint into the DIRECT-TO menu using the instructions above.

Saying "**CANCEL**" at any time will return you to the NAVdev page

Version 1.6 introduces a new alternative way to input coordinates.

Follow steps 1, 1a, 2, and 3 above

Once at the second digit of the North Coordinate, say “***enter position***” or “***enter coordinates***”  
eg N035’25.46 (3 would be the second digit)

Your co-pilot will announce “**ready to copy**”

In quick succession, read off your north coordinate in single digits  
eg “ **three five two five four six**”

Pause for a moment, then

In quick succession, read off your east coordinate in single digits  
eg “ **three nine four three two three**” or “**one one five two three four seven**” (Nevada)

Your copilot will read back the coordinates and ask you if they copied it down correctly, if so, say “**yes**”

Your copilot will then feed the coordinates into the GPS system.

Document continues on the next page

## SETUP DATA FIELDS



Data Field options can be saved in the Voice attack profile.

You will find two categories:

**NS430 Actions - Setup Data Fields - Nav Map Choose fields [HERE](#)**

**NS430 Actions - Setup Data Fields - Nav Dev Choose fields [HERE](#)**

## NavMap positions

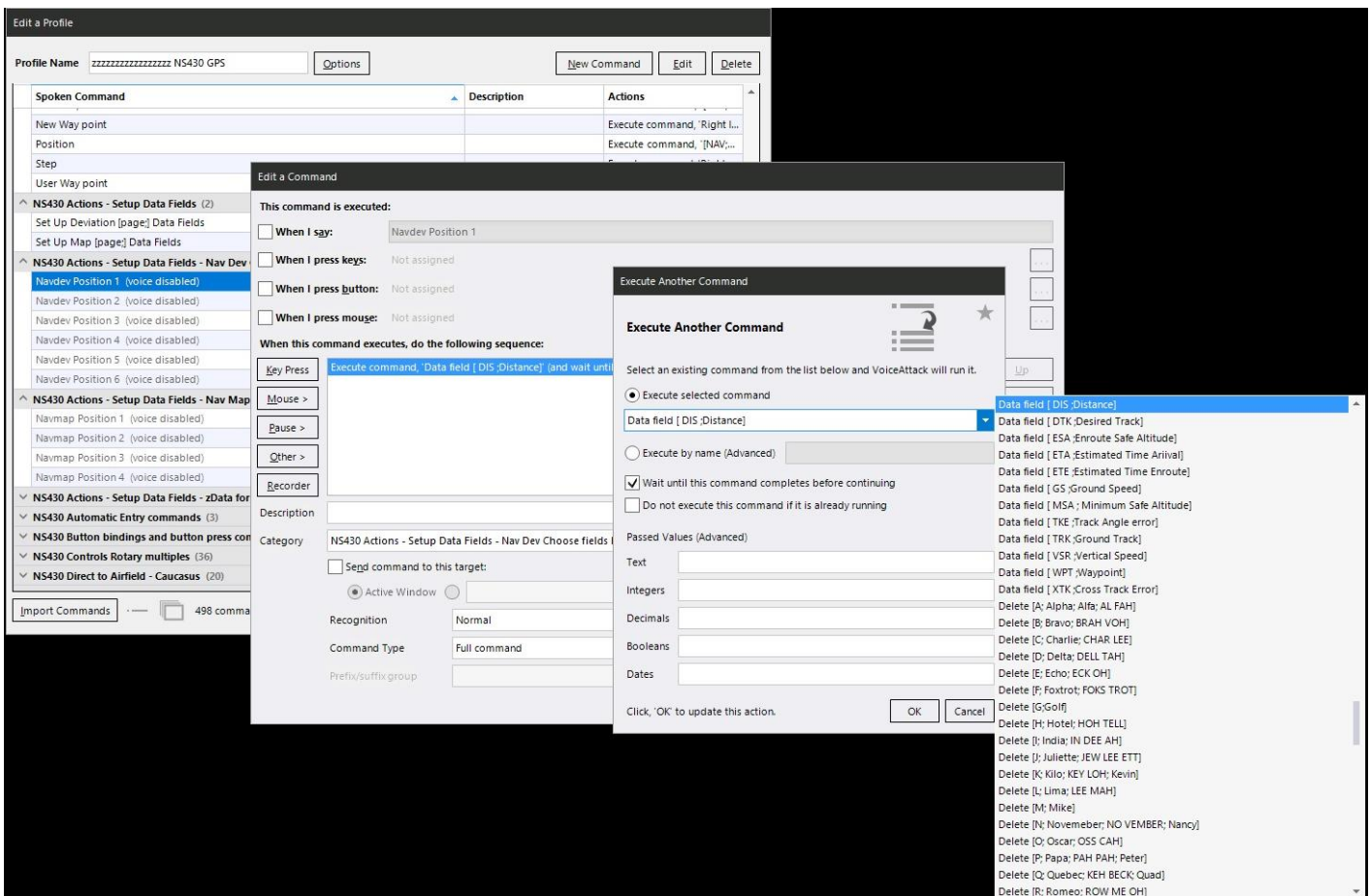


## NavDev Positions



You can select which “Data Field” you want in each position by:

1. Double click on the position you want to change eg Navdev Position 1 or Navmap Position 2
2. Double click on the “Execute Command ‘Data field [ DIS ;Distance]’ (and wait until it completes)”  
*other data fields may be shown*
3. The “Execute Another Command” window opens, choose the Field you want from the drop down list
4. Repeat for all required positions.



The drop down list contains all the commands in the profile, be sure to only choose a “Data Field [ xxx ;xxxxx] command

## **INSTALLATION**

It is essential that the following are installed:

DCS-BIOS: <https://github.com/DCSFlightpanels/dcs-bios/releases>

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Optional - Sounds (clicks and beeps)

copy the NS430 folder into your Voice Attack installation folder \sounds

Demo videos

[NS430 Voice attack Profile demonstration](#)

[NS430 VoiceAttack update to V1.0](#)

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Could also not have done this without VoiceAttack forum moderator Pfeil, big thanks!

Cheers

Jonsky7

**Sound**

Saying “Sounds On/off” will turn on or off button clicks, and beeps

“Speech On/Off” Turns the Text-to-speech readback on or off

These default to “ON” when Voice is used to carry out system power up.

*the triggers for turning them on are in the command [NAV;Navigation;G P S;SATNAV] POWER ON*

**The button click sounds** are referenced to the commands in the NS430 sounds category.

This allows for quick editing/changing of the sounds used, there are two sounds that are included in voice attack and two custom sounds included in the package.

The readback of numbers are text to speech, and those commands can be found in the NS430 Numbers commands.

Edit a Profile

Profile NameNS430 GPSOptionsNew CommandEditDelete

Spoken Command	Actions
NS430 Actions (11)	
NS430 Controls (20)	
NS430 Controls Rotary multiples (36)	
NS430 Numbers (10)	
NS430 Pages (25)	
NS430 Phonetic (26)	
NS430 sounds (4)	
NAV button clkik sound (voice disabled)	Play sound, '[VA_SOUNDS]\NS430\click.wav'
NAV new page sound (voice disabled)	Play sound, 'internal:Fadonn'
NAV power on sound (voice disabled)	Play sound, 'internal:Sneak'
NAV rotary clkik sound (voice disabled)	Play sound, '[VA_SOUNDS]\NS430\click_1.wav'



## Phonetic Alphabet

<b>Symbol</b>	<b>Code Word</b>	<b>Phonic (pronunciation)</b>
A	<b>Alfa/Alpha</b>	AL FAH
B	<b>Bravo</b>	BRAH VOH
C	<b>Charlie</b>	CHAR LEE
D	<b>Delta</b>	DELL TAH
E	<b>Echo</b>	ECK OH
F	<b>Foxtrot</b>	FOKS TROT
G	<b>Golf</b>	GOLF
H	<b>Hotel</b>	HOH TELL
I	<b>India</b>	IN DEE AH
J	<b>Juliett</b>	JEW LEE ETT
K	<b>Kilo</b>	KEY LOH
L	<b>Lima</b>	LEE MAH
M	<b>Mike</b>	MIKE
N	<b>November</b>	NO VEMBER
O	<b>Oscar</b>	OSS CAH
P	<b>Papa</b>	PAH PAH
Q	<b>Quebec</b>	KEH BECK
R	<b>Romeo</b>	ROW ME OH
S	<b>Sierra</b>	SEE AIRRAH
T	<b>Tango</b>	TANG OH
U	<b>Uniform</b>	YOU NEE FORM
V	<b>Victor</b>	VIK TAH
W	<b>Whiskey</b>	WISS KEY
X	<b>X-ray</b>	ECKS RAY
Y	<b>Yankee</b>	YANG KEY
Z	<b>Zulu</b>	ZOO LOO