Waypoint data structure:

```
struct WAYPOINT {
//always set to 1
  unsigned char wp_number;

//don't care
  unsigned char dummy_1;
  unsigned short dummy_2;

//see WPPROP defines below
  unsigned char properties;

//max. speed to travel to waypoint in % (default 100)
  unsigned char max_speed;

//time to stay at a waypoint (XYZ) in 1/100th s
  unsigned short time;

//position accuracy to consider a waypoint reached in mm (default: 2500 (= 2.5 m))
  unsigned short pos_acc;
//chksum = 0xAAAA + wp.yaw + wp.height + wp.time + wp.X + wp.Y + wp.max_speed +
wp.pos_acc + wp.properties + wp.wp_number;
  short chksum;

 //waypoint coordinates in mm         // longitude in abs coords
  int X;
 //waypoint coordinates in mm         // latitude in abs coords
  int Y;

//Desired heading at waypoint
  int yaw;

//height over 0 reference in mm
  int height;
};

#define WPPROP_ABSCOORDS              0x01      //if set waypoint is interpreted as
absolute coordinates, else relative coords
#define WPPROP_HEIGHTENABLED          0x02      //set new height at waypoint
#define WPPROP_YAWENABLED             0x04      //set new yaw-angle at waypoint
(not yet implemented)
#define WPPROP_AUTOMATICGOTO          0x10      //if set, vehicle will not wait for
a goto command, but goto this waypoint directly
#define WPPROP_CAM_TRIGGER            0x20    //if set, photo camera is triggered
when waypoint is reached and time to stay is 80% up
```

Sending the waypoint structure to the vehicle:

The following string must be sent to the vehicle, directly followed by the actual waypoint structure:

unsigned char string[]=">*>ws";

Commands for the waypoint navigation:

>*>wg "Goto waypoint"
>*>wl "Launch / Set Home
>*>we "End flight => land at current position"
>*>wh "Come home"

Sending the launch command when the vehicle is hovering with the switch on the R/C in "GPS + Height control" sets the home position.

You will receive an acknowledge if a command or a waypoint was received correctly:

>a[1 byte packet descriptor]a<