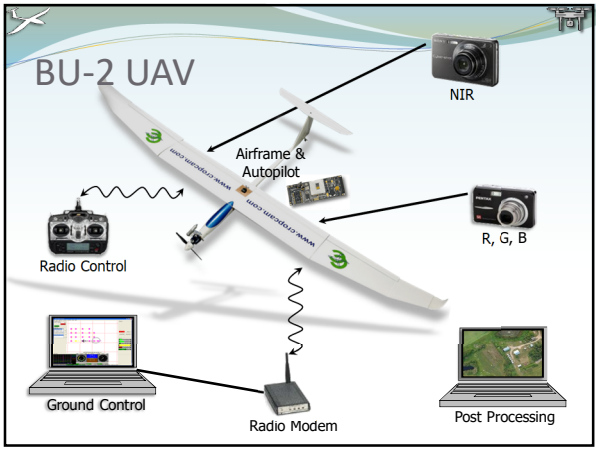
Part 3: Getting Ready to Fly

- Flight Planning
- Flight Control
  - Modes of Operation
  - Intelligent Orientation
  - Failsafes, Fences, and NDZs
- Camera Control

BU-2 UAV

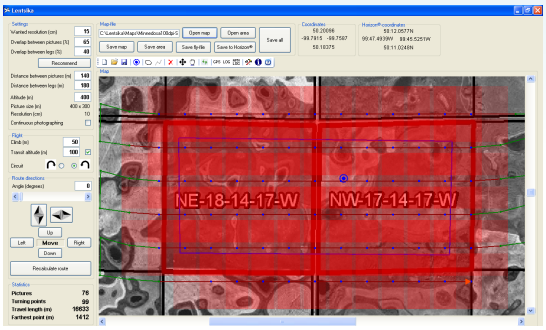


Flight Commands

```
metric
takeoff
[1239] = 0
climb 600
waitclimb 50

flyto (99:45.3865W,50:11.7579N)
climb 600

flyto (99:45.5512W,50:11.7579N)

fromto (99:45.6184W,50:11.7579N)

fromto (99:45.8200W,50:11.7579N)
[fServo8] = 32767
wait 4
[fServo8] = 0
```

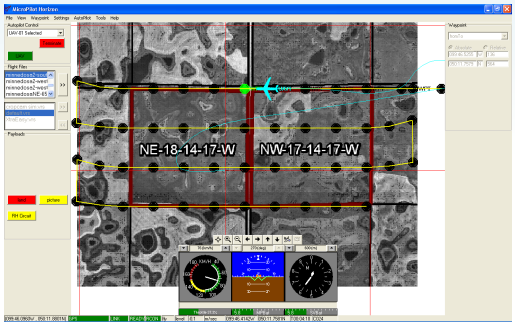
```
fromto (99:45.9964W,50:11.3223N)
[fServo8] = 32767
wait 4
[fServo8] = 0

fromto (99:45.8200W,50:11.3223N)
[fServo8] = 32767
wait 4
[fServo8] = 0

climb 100
flyto [home]


circuit
return
fixed//second shot
```

Flight Planning

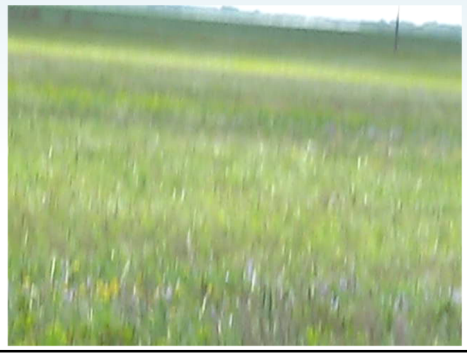


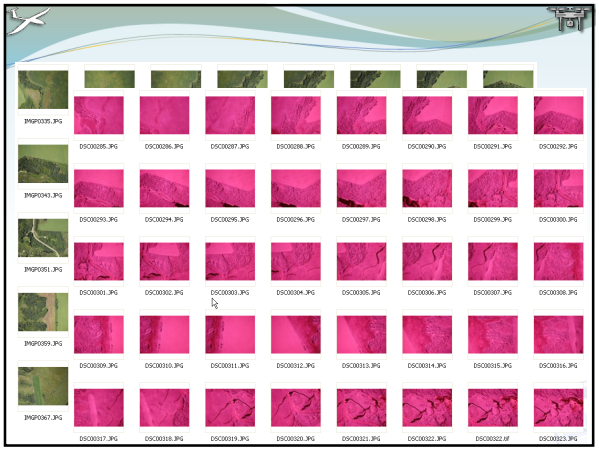
Hand Launched

Flight Monitoring

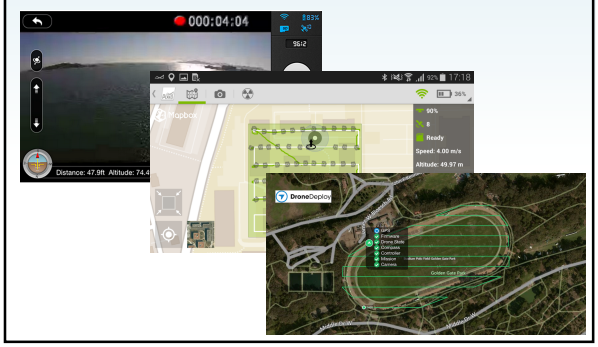


Skid Landing





Flight Planning and Monitoring



UgCS Flight Planning

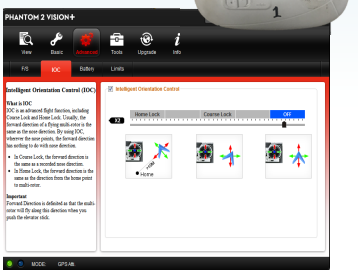
UgCS Flight Monitoring

Modes of Operation

- GPS
- Attitude
- Manual
- Autonomous

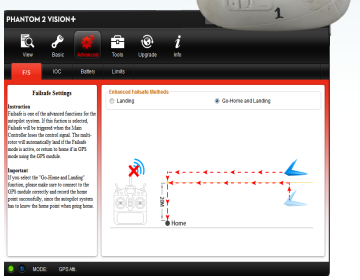
Intelligent Orientation

- Normal/Off
  - direction relative to airframe
- Course Lock
  - direction relative to orientation at takeoff
- Home Lock
  - direction relative to home point



Failsafes, Fences, NDZs

- Failsafes
  - lost link, low battery
  - return to home, or return and land
- Distance Limits
  - set horizontal and vertical extent of flight
- No Drone Zones
  - areas of exclusion, e.g. airports, restricted airspace



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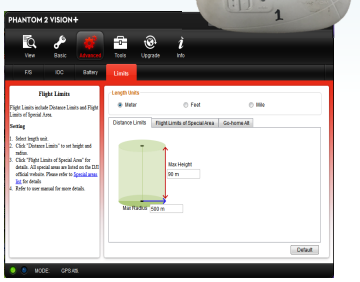

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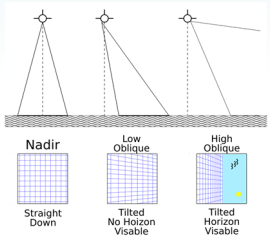
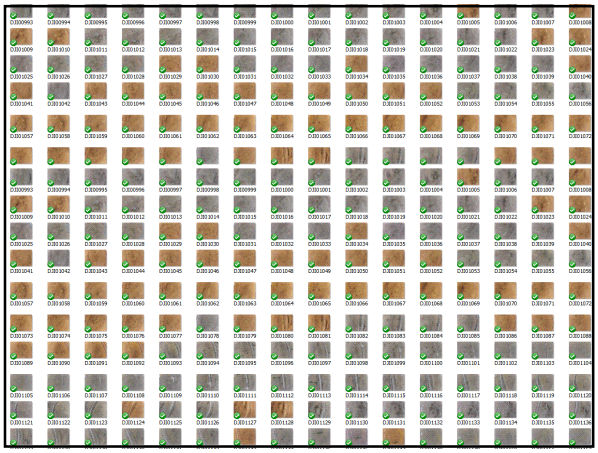
Camera Control

- Nadir (vertical)
- Oblique
- First Person View
- Fixed/Point of Interest
- Free Flight