



BARNSTORMER NEWS

AMA CHARTER CLUB #943
Volume 36 Number 1

PORTLAND, OREGON
© March 2011



President's NOTAM

Scott Price

(503) 678 1547

sprice133@comcast.net



I found this cartoon online and thought it worth sharing! It's why I fly ARF's!

Thanks to our field crew, Van Camp field is looking in good shape for the start of Spring flying. The grass is green and mowed and today (Sunday) Doug Snapp and Don Fisher were spreading Mole Castor on the field, so the moles should start "going" soon!

Annual field clean up day is scheduled for Saturday, April 23. More details to follow, but like most of these projects, the more hands on deck the faster it goes. Dave Tozer is also trying to schedule our Spring Adopt a Road project for Saturday, April 16th. For those who didn't see the broadcast email, I'm reminding again here. Please call Dave at 503-639-8754 if you can help. Dave needs to schedule ahead with Marion County, so earlier is better. Thanks.

I'll be on vacation the week of the April meeting, so I appreciate the rest of the officers filling in for me.

See you at the field.

Scott



Minutes of the meeting 3/21/11

Will Smith

(503) 977 0551

will.smith@q.com

Scott opened the meeting @ 7:29 PM with 24 in attendance at the church.

Minutes:

Not addressed at this meeting..

Guests:

- Scott Maytubby (2nd time)
- Nathan Oard (2nd time)
- Eric Olson (has been in club for many years before)
- Jeff Merritt (1st time by proxy letter)

Vice Pres:

George feeling better and is now ready for mower duty.

Membership:

Darrel Rondeau voted in by majority vote at last meeting, but he failed to get his dues paid on time and was 16 days late. He was voted out by majority vote..

New Members; Scott Maytubby & Nathan Oard voted in by majority vote.

Treasurer:

Account is still in the black with a good balance. Call Treasurer if you need specific numbers.

Recycle:

Dave said we had 5200# for February (@ \$90 per ton. SPECIAL NOTE: Make sure that newspapers only are bagged or tied together. We are getting a better price for the paper because it does not require sorting by the fiber recycler. Phone books and magazines can be recycled but DO NOT MIX WITH NEWSPAPER in same bag or tied grouping. The inserts that come in the newspapers can be recycled with the newspapers.

Newsletter: No input.

Field Committee:

- Moles: We will be getting the mole "exlax" in a few weeks. We will be getting 150 bags of material which should last for more than one year..
- Grass: George says he's feeling good enough to report for mower duty.
- Airplane Restraints: John Gooding is continuing his development work on a table mounted restraint system.
- Workday: We will wait for better weather for our annual club workday. Historically that has been mid April after the April club meeting.
- Canopy: We need a new tarp for the canopy framework.

Webmaster: No input

Historian: No input

Safety: [Carryover notes from January meeting]

- Slick surfaces; Taxiway and runway are slick again with moss due to the rains. The hazard will diminish when we get an extended dry period. Walk carefully.

Old Business:

- Picnic: No further discussion on annual picnic.
- Workday: Someone will contact Brad to check with Asplundh to get some wood chips for spreading in the areas around the pit area.
- Workday is normally scheduled for the Saturday after the regular club meeting (Sat, 4/23/11)

Next regular meeting:

Monday, 4/18/11 7:30 PM at the Butteville Community Church

Another bunch of minutes

by WILL SMITH





Barnstormer Officer reports



Treasurer's Report

Garth Walbert ☎(503) 951-3240
 ✉ gwalbert@mackmolding.com

We are in the black!



Flight Training Program

Dan Phillips ☎(503) 692 5917
 ✉ danp52@frontier.com

Flight instruction continues at the field every Saturday Noon, weather permitting.

It's always a good idea to factor in the wind because it's not much fun if the wind is blowing over 10 mph and is gusty, even if its not raining. Check out the link to the Aurora Airport weather station on the club website for an up to the hour report.



Field Committee Report

Don Fisher ☎(503) 869 2353
 ✉ djfisher.fisher@gmail.com
 With Doug Snapp & Brad Eaton



Recycle Officer

Dave Tozer ☎(503) 639 8754

Keep up the good work & bring waste paper to the meeting or leave it at the field in the old shed.



Web Master

Mark Shuggert ☎(360) 480 4231
 ✉ mshugert@easystreet.net



Safety Officer

Kent Buse ☎(503) 847-8591



Membership Chairman

John Borelli ☎(503) 515 7454
 ✉ insidlop@aol.com

We have. 3 openings at this time. For membership to the club.

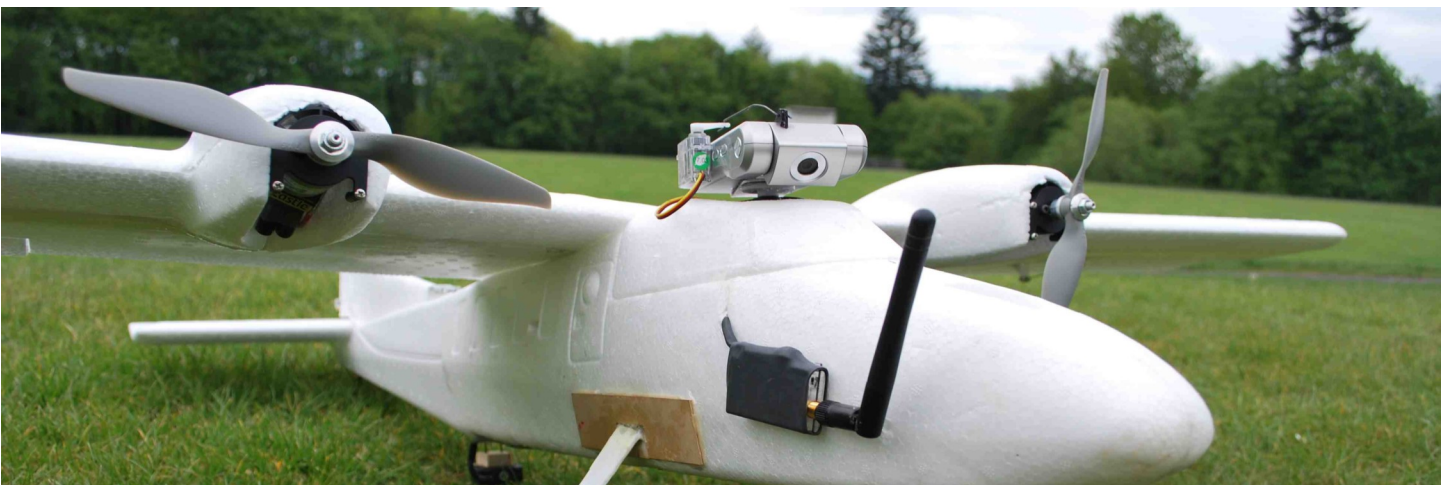
May your wings always be in the air.



Newsletter

Eric Dufosse ☎(503) 292 5620
 ✉ eric@dufosse.net

Here is the second section of the serie about FPV, thanks for your feedback and contribution.





Cool Stuff: First Person View (FPV)(Part2)

By Eric Dufossé

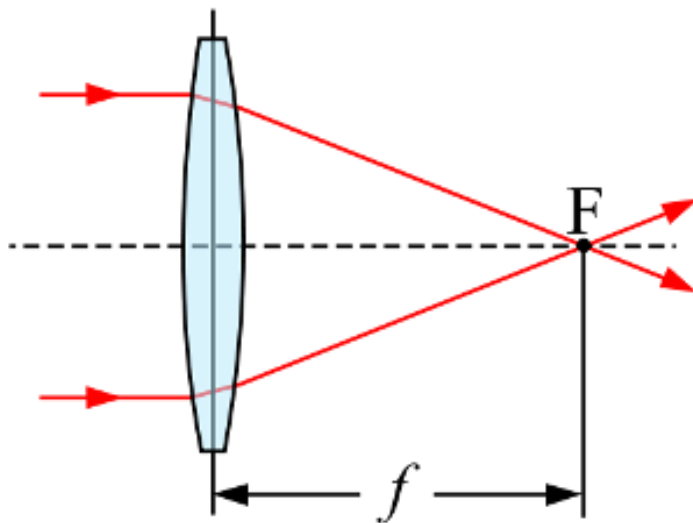
After the introduction last month let's cover the deployment per modules: This month we will cover cameras.

This article is an augmented version of the document available on RC forum;

<http://www.rcgroups.com/forums/showthread.php?t=1355327>

A camera consists of four main sub systems :

- lens
- sensor
- processing
- Interface



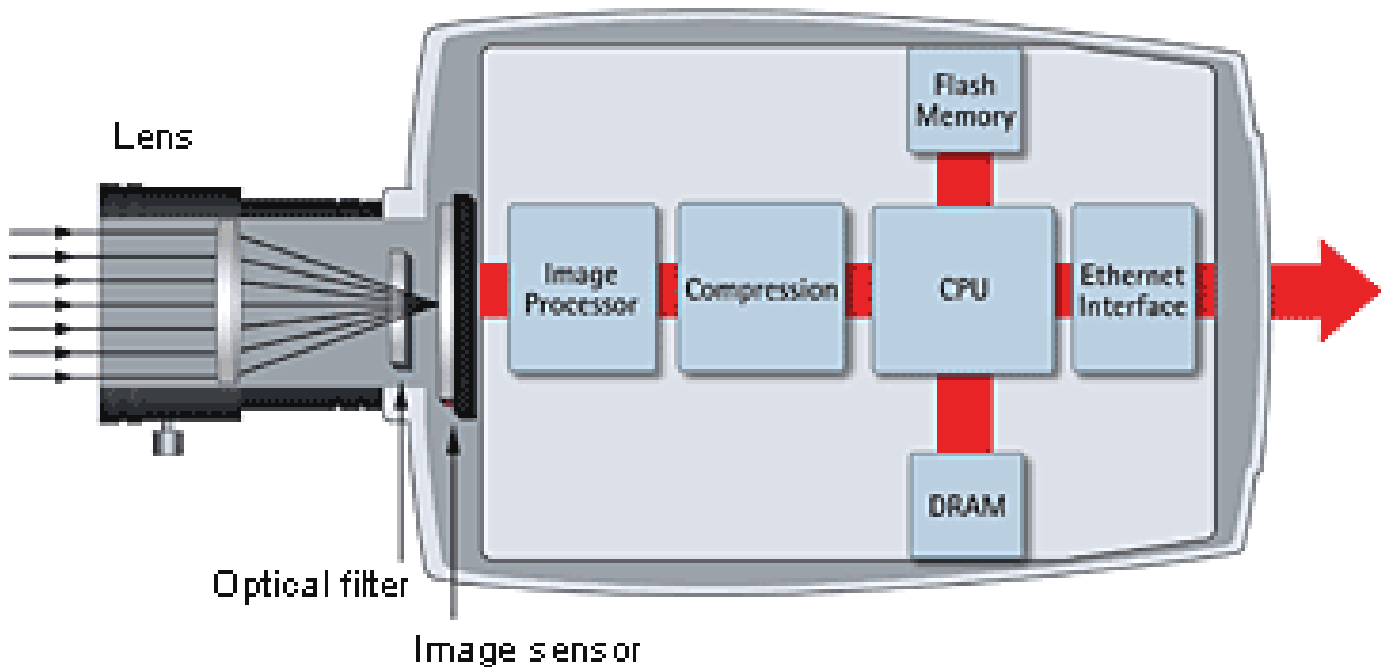
The most important thing is the lens. The lower the focal point, the wider the view. For example: a 2.1mm lens will have a 120-150 degree view. A 3.8mm is standard and has about a 70-90 degree

field of view. 6mm is a 'normal' lens. It has a 60 degree view but all distances are realistic. What's this about distance??? Wide angle lenses make things seem farther away than they really are. Wide angles make the scenery pass by slower and are generally better suited for beginners. Objects are harder to depict, however. Most pi-

lots prefer a 2.8mm-4mm lens.



Two decades ago of the sensor CCD, replaced the tube technology as image capturing device and allow a first wave of miniaturization. But they required a relative amount of power and are expensive to build. A most recent evolution, The CMOS facilitated a simplification of the sensor manufacturing, they are less expensive to built but require more advanced processing the reach the picture quality of CCD's . The most popular type of camera is the 1/3" Sony sensor CCD camera. CMOS cameras are also fairly common. Thanks to the huge security industry, there are hundreds to choose from anything from board cameras to encapsulated cameras to parts needing assembly, you can choose almost anything.



The second most important thing is BLC or back-light compensation. Many cameras have trouble with a bright sky and dark ground where the ground loses all recognizable texture and becomes a gray blob. The ability of cameras to overcome this varies greatly. My suggestion is to watch some videos that look appealing and then buy the camera they use or choose from the list at the end of this chapter.

The next thing to consider is resolution. Higher resolution will help you distinguish objects better. 420TVL is sufficient in most cases. 540 TVL is the highest resolution that most viewing screens can display. 600TVL is the upper limit with most cameras available. That said, I can hardly tell the difference between 540 and 420 TVL unless I'm trying to soar with the turkey buzzards. Today some HD camera are available but we need to consider the need; the purpose is not to take pretty picture but to have a reasonable image quality under various lighting condition and be coherent in term of image quality with the transmission system we will describe later.

Here is a short list of cameras that seem to work very well with FPV:

\$26 cheapo, but it works

- <http://www.securitycamera2000.com/products/420TVL-1%7B47%7D3-Sony-CCD-CCTV-PCB-Board-Camera-3.6mm-Lens-for-CCTV-Camera.html>

\$50 camera with adjustable settings:

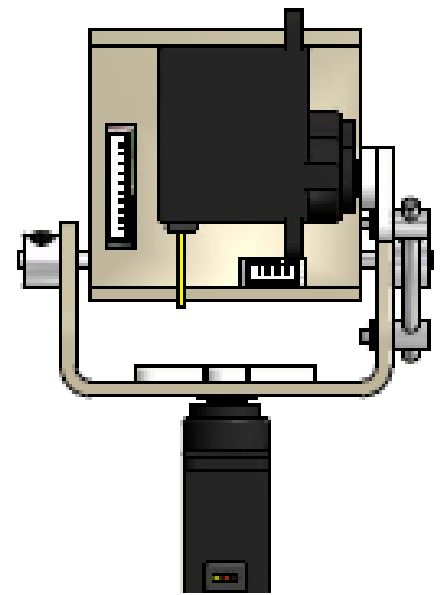
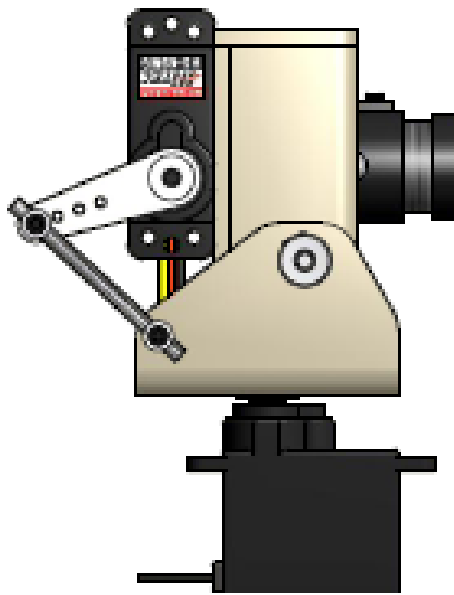
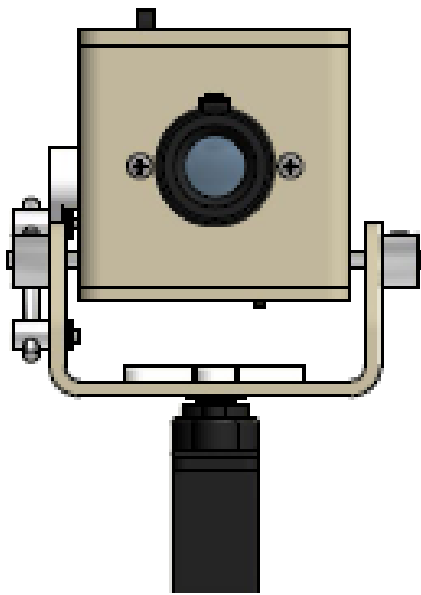
<http://www.securitycamera2000.com/products/540TVL-SONY-CCD-Chipset-Color-Board-Video-Camera-for-Security.html>

The VSN500. Generally considered one of the best cased cameras (but requires a filter if using a GPS): <http://usasecuritysystems.com/products/KT&C-KPC-VSN500NHB.html>

A word of advice: Glue your cameras connector in place. They are easily damaged and the last thing you need is to have a bad connection with your plane in the air.

The other aspect of the camera is the fixation of the camera, you can chose for a fix mounting ,

or go for a Pan/Tilt solution. This solution is more expensive and heavy but will allow you to change the angle of view. It will require a sensor device on the viewing device or additional control for the remote control



Reminder of the AMA recommendations for FPV flying object

<http://www.modelaircraft.org/files/550.pdf>

1. An FPV-equipped model must be flown by two AMA members utilizing a buddy-box system. The pilot in command must be on the primary transmitter, maintain visual contact, and be prepared to assume control in the event of a problem
2. The operational range of the model is limited to the pilot in command's visual line of sight as defined in the Official AMA Safety Code (see Radio Control, item 10).
3. The flight path of model operations shall be limited to the designated flying site and approved overfly area.
4. The model weight and speed shall be limited to a maximum of 10 pounds and 60 miles per hour.

