



SANDERSON FIELD R.C. NEWS

Merry Christmas



CHARTER NO. 3079

CLUB MEETING

*This months meeting will be held
on Thursday December 8th at 7:00
p.m.*

at PUD #3

At 3rd & Cota

As stated above the regular meeting will be held at the PUD #3 auditorium on December 8th. We will hold elections at that time.

The Christmas party will be held at Lee's Chinese buffet on December 15th. The address and a map are on page 3. There is also a map on the Web site.

We had 4 new members join at the last meeting. Welcome to:

Tom Strom Jr.
Andy and Eli Loertscher
Mark Anderson.

Sharon Diaz made a motion to have 3 winter Pylon races which passed. The dates proposed are:
Jan 15th
Feb 12th
March 12th

If you want to help with any of

these races let one of the officers know and we'll get you the info you need. We are also considering a 2 day contest in August. Tom Strom Jr. thanked our club for allowing the Props to have the Pylon race here. I couldn't attend but by all accounts it was fun to watch and participate.



The Northwest Hobby Expo (Puyallup) is scheduled for February 3rd - 5th. For more information and buy tickets online go to:
www.nwhobbyexpo.com

Or Call

(562) 240-2134

This years Swap Meet will be held on April 15th at the Shelton High School SUB. This is the same place we've had it for at least 4 years. The directions are:

From Olympia: Take exit 104 from I5 onto Hwy 101. Go North on Hwy 101 N for approximately 23 miles (until you reach Wallace Kneeland Blvd.). Take Hwy 101 N to Wallace Kneeland Blvd. Turn right on Wallace Kneeland Blvd. Turn left on Shelton Springs rd. Shelton High School will be on the left. The swap meet will be located in the SUB.

From Olympia (Alternative): Take exit 104 from I5 onto Hwy 101. Go North on Hwy 101 N for approximately 24 miles (until you reach Shelton Springs Rd). Turn right on Shelton Springs Rd. (At Texaco Station). Shelton High School will be on the right. The swap meet will be located in the SUB.

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For those of you renewing by mail, give Chuck a break and send a self addressed and stamped envelope along with your proof of AMA membership and check please.

Which is Better: PPM vs PCM

from the River District RC
Eagles, Saint Clair MI

by Ed Olszewski

Aside from all the other choices when selecting an RC radio system, the terms PPM and PCM comes up. PPM or Pulse Position Modulation is standard FM. The next step up is PCM or Pulse Code Modulation which seems to be shrouded in mysticism. In a nutshell, it is not what frequency each is on, but how they use their frequencies. To demystify PCM somewhat you should understand that there is no range increase with PCM. It is not on some special side band or frequency. It shares the exact same FM frequency everyone else on your channel is using, and is susceptible to the same interference. There is, however, improvement in noise reduction and safe performance while the noise is received. Noise is the undesirable signals on your frequency. They can be caused by anything from sunspots to another transmitter horning in on

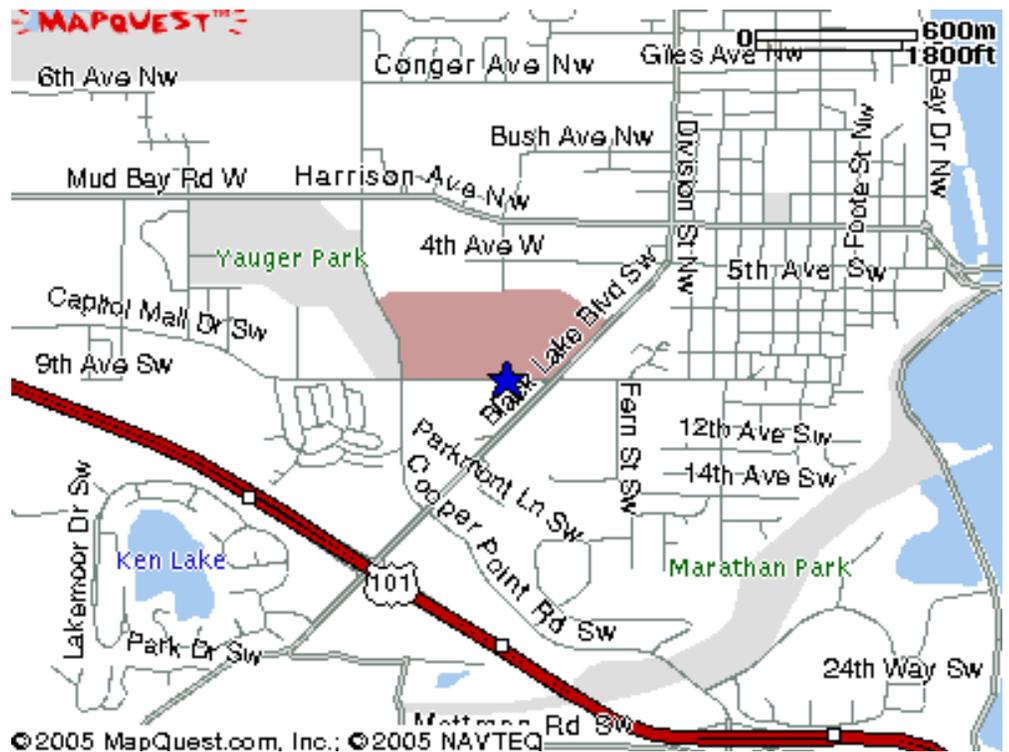
your frequency. Today's modern radios operate on a narrow band that eliminates most of the random noise. Basically, the PCM radio takes your FM signal and "codes" it digitally (the "C" in PCM). Then the PCM receiver "decodes" the signal to utilize it. Since noise is not a normally recognized code, it is ignored by the PCM receiver, and is not sent as servo instructions. In addition PCM does not transmit position signals for each servo in each transmitter pulse. Rather it transmits movement commands as required, and occasional positions confirmation commands. Short periods of interference will simply leave the servo at its last known position, and not show such radio interference as glitches or fluttering. If your PCM receiver continuously receives interference past the preset time, it then switches into "failsafe mode," and obeys some preset commands you programmed in the receiver. For example, you may set failsafe to throttle down and move all other

surfaces to the neutral position. This is great if you are in level flight, but disastrous if you are exiting a loop. If set to continue the last command, it will often keep your model in the loop. Unfortunately, failsafe settings will put your model in a precarious situation you didn't want it locked into. A third level of protection may be obtained by using a pilot assist module in combination with preset positions on the failsafe settings. You can help ensure your model will go to level flight at a slow—but safe—airspeed and hopefully safely ride out the interference. Even though the radio does not glitch, it is not to say the PCM radio was in good contact at all times. If another radio is transmitting on your frequency, it can—and likely will—interfere with your receiver's ability to receive the proper signal from your transmitter. The CB radio enthusiast in the seventies used to call this being "walked on." PCM will help keep your receiver from acting on a bad signal, but there is nothing it can do if a good

Which is Better: PPM vs PCM (continued)

signal can not be received over the interference. The logic of PCM is that it is better to momentarily do nothing than act on a bad signal. PCM benefits are purely in precise transmitter/receiver communication. PCM does, unfortunately, have a serious weakness. Even minimal atmospheric or external noise can foul up those wonderful intricate binary numbers beyond any correction. In that case, the receiver is up a creek without a paddle. Think of it as if trying to communicate a grocery list via cell phone in a "one bar" area—some things are not going to make it in the grocery cart. With PCM the main purpose is to hide glitches by not transmitting them to a control surface command. As far as the pilot is concerned, there is only an unnoticeable momentary loss of control. If the radio interference is persistent, the pilot will probably be unaware and may lead to total loss of control sending the airplane either into the wild blue yonder or to the ground. On the other hand, the simple PPM pulses may be corrupted with

CHRISTMAS PARTY LOCATION



Lee's Buffet
 2627 Capital Mall Dr SW
 Olympia, WA 98502 - 8696
 (360) 943-9288

CLUB OFFICERS

President	Jody Diaz	(360)427-6102
Vice President	Dick Robb	(360)427-4521
Treasurer	Charles Kentfield	(360)866-9473
Secretary	Bob Beatty	(360)426-5601
Field Marshall	Charles Kentfield	(360)866-9473
Safety Officer.....	John Tupper.....	(360)426-6383

BOARD MEMBERS

Board Member.....	Jody Diaz	(360)427-6102
Board Member.....	Dick Robb	(360)427-4521
Board Member.....	Stacy Myers.....	(360)426-9367
Board Member.....	Bob Beatty	(360)426-5601
Board Member.....	Gordon Osberg.....	(360)426-5172
Alt Board Member		
Alt Board Member	Chuck Kentfield	(360)866-9473

PPM or PCM (Cont)

some information getting through. When things go bad, the choice is between no control (PCM)—and some control (PPM). Most RC pilots would prefer having some control even if erratic. When a model aircraft is suddenly doing the funky chicken, it is normally a signal to land. Most radio interferences are normally small glitches and are recoverable, giving the PPM pilot a chance to land and find the cause of the problem. The bottom line is if you are looking for a bullet-proof radio system to keep your airplane from falling from the sky, it does not exist. A system sporting PCM is an excellent choice for larger acrobatic and 3-D fliers with quick throws, where a small glitch may send it suddenly into the ground. PCM will of course work on smaller, more docile airplanes. These airplanes will benefit less from the added features, and PPM is probably a good bet. Remember there is no substitute for a good battery charge and a range check. If another radio on your frequency is turned on, there is little any radio can do to keep you from being "shot down."



IF YOU HAVEN'T PAID YOUR DUES YET PAY BEFORE DECEMBER 31ST FOR A \$10 SAVINGS. AFTER JANUARY 1ST DUES ARE \$40.

IF YOU PAY BY MAIL SEND YOUR DUES, PROOF OF 2006 AMA MEMBERSHIP AND A SELF ADDRESSED STAMPED ENVELOPE TO THE TREASURER:

***CHUCK KENTFIELD
6843 Gallagher Cove Rd NW
Olympia WA 98502***

(SWAP MEET DIRECTIONS CONTINUED)

From Bremerton: At Bayshore turn right on Johns Prairie rd. Stay on Johns Prairie rd till you come to a stop sign on Brockdale Rd. Go straight thru the stop sign. Turn right on Shelton Springs Rd. Shelton High School will be on the left. The swap meet will be located in the SUB.

From Hoodspport: Go left on Shelton Springs Rd. Turn right into the Shelton High School parking lot. The swap meet will be located in the SUB.

These directions and a map are on the web site at <http://sfrcf.quintex.com>. Look under Events.