Committee - George Whelan 208617, Derek Robertson 821368, Neil Davidson 712458

NEWSLETTER DECEMBER 1999

Hello playmates
The AGM was duly held at the Cove Bay Hotel, all the usual suspects attended and there was some good debate as well as reminiscing about the good old days that would have bought a tear to a glass eye. See attached AGM minutes.

This years Committee: -

Neil Davidson,	**Treasurer / membership.**	**01224 712458**
Derek Robertson	**Competitions**	**01224 821368**
George Whelan	**Chair person**	**01224 208617**

One of the main points of discussion was the Tuesday night assembly, it was recognised that this was not the best time of the day to go thermal flying as due to the dying air it became a process of circuits and bumps, maximum frustration, minimum flying. The opinion was that we have a better chance of getting in some meaningful flying if we revert to the slope on Tuesday evenings and Calder Park on Saturdays. This motion duly was passed.

Another good point was the issue of contacting other clubs in our area and setting up an information network, could anybody out there who has contact information with other clubs please on-pass to the committee and I will pursue this over the year.

Neil Davidson has written to the SAA for a copy of their insurance policy, a good measure of dissatisfaction was expressed at the lack of performance of the SAA over recent years. Some members also expressed interest in joining BARCS, this info will be circulated after the BARCS AGM on 5th December.

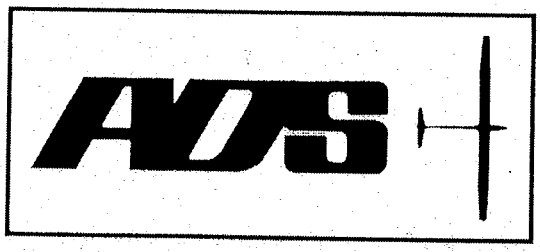
A winter slope-flying programme was agreed with assembly at the west car park at Brimmond Hill on the last Saturday of the month - see attached programme for dates.
This month's soar-away bumper issue is devoted to slope soaring.

Plan - Pibros. This is a well-known sloper verging on the indestructible; it is also cheap enough to be expendable. I have a couple left for the princely sum of £10 each - where else can you get an ARTF for that price. As long as your transmitter will mix for V tail there is no problem with controls; you might get away with a rocking head type servo disc.

I have enclosed a write up of some of our local slopes along with a summary of the same for wind direction and OS map reference, this assumes a 30 degree swing either side of the hill face, some of them will work with a greater swing than that.

We are trying to compile an inventory of club equipment, can anybody who is in possession of any such equipment send me a description so that I can add it to the inventory. Once we know how much we have the committee will implement a control method for logging this equipment in and out to members who want to use it.

We have in our possession a number of club trophies including the newly established **Davie Davidson Memorial Trophy**, any idea's as to what we are going to present these trophies for.



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1999 / 2000 PROGRAMME

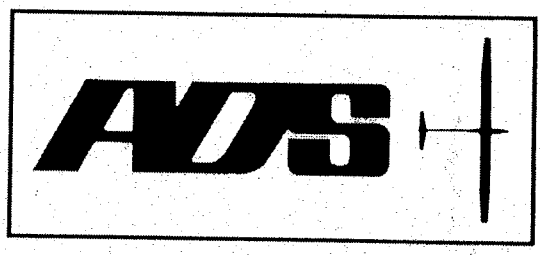
WINTER FLYING

Last Saturday of the month, assemble Brimmond Hill west carpark @ 11:00
January 29th, February 26th, March 25th.

SUMMER FLYING

Tuesday evenings, assemble Brimmond Hill west carpark.
Saturday at Calder Park for thermal flying.

07th May	Slope Fly - in.	Venue TBA
27th - 29th May	Radioglide.	Doncaster.
3rd - 4th June	Club fly - in and comp.	Hazlehead Park.
10th - 11th June	Back up date for club comp.	Hazlehead Park.
5th - 7th August	Scottish Nats.	Pitreavie.
13th August	Club Barbecue and fly - in.	Calder Park.
17th September	Slope fly - in.	Venue TBA.
10th October	Bring & Buy.	Cove Bay Hotel.
7th November	AGM.	Cove Bay Hotel.



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MINUTES FOR THE 1999 AGM

The venue for this year's AGM was the Cove bay Hotel, thanks to all of those who attended.

Apologies for absence were received from Norrie Kerr.

The minutes of the 1998 AGM was read by George Whelan, accepted by Tom Bartlet and seconded by Graham Donaldson.

The Treasurers Report was read by Neil Masson. The overall situation is that the loss of £363.58 was recorded for the year, this was due to extraordinary items of expenditure such as £320 for a new winch and line, £148 for club equipment and £32 for Davie Davidson's flowers.

The Competition Report was read by Brian Ord. This report explained that the competition program had not been a success due to poor weather and attendance's. The report was accepted by Bill Stark and seconded by Jim Ruxton.

Club Fees. Neil Masson put forward two proposals with regards to the club fees. The first was that a joining fee should be payable when first joining or re-joining after letting fees lapse. The second was that the fees should be increased to create a fund if the situation arose that the club was forced to have to pay or buy new premises. Neither of these proposals was seconded.
George Whelan put forward the proposal that the fees should remain static for the next year, seconded by Jim Ruxton. After a vote, George Whelan's proposal was accepted.

To summarise, the fees for the year to 2000 are as follows;

Adult	£10.00
Junior up to 16	£5.00
Over 65	Free (SAA fees will still be due)

Winter Programme. A winter program of slope flying on the last Saturday in January to March 2000 was proposed by Graham Donaldson and seconded by George Whelan.

SAA Business. Brian Ord explained that he had written to the SAA in the hope of obtaining some assistance in dealing with the problems regarding the continuing use of Calder Park, he was most disappointed in the lack of response which did not offer any assistance.

Committee Resigns. The Committee resigned with only George Whelan offering himself for re-election.

Nominations & Election of the New Committee. These were as follows;

Chairman: George Whelan was proposed by Tom Bartlet and seconded by Allan Stewart.

Events Organiser: Derek Robertson was proposed by Graham Donaldson and seconded by Tom Bartlet.

Secretary & Treasurer: Neil Davidson was proposed by Neil Masson and seconded by George Whelan.

AOB.

1) It was proposed by Allan Stewart that the committee get sight of the SAA insurance policy. Neil Davidson to pursue.

2) Some members expressed interest in joining BARCS, a information flyer will be issued in due course.

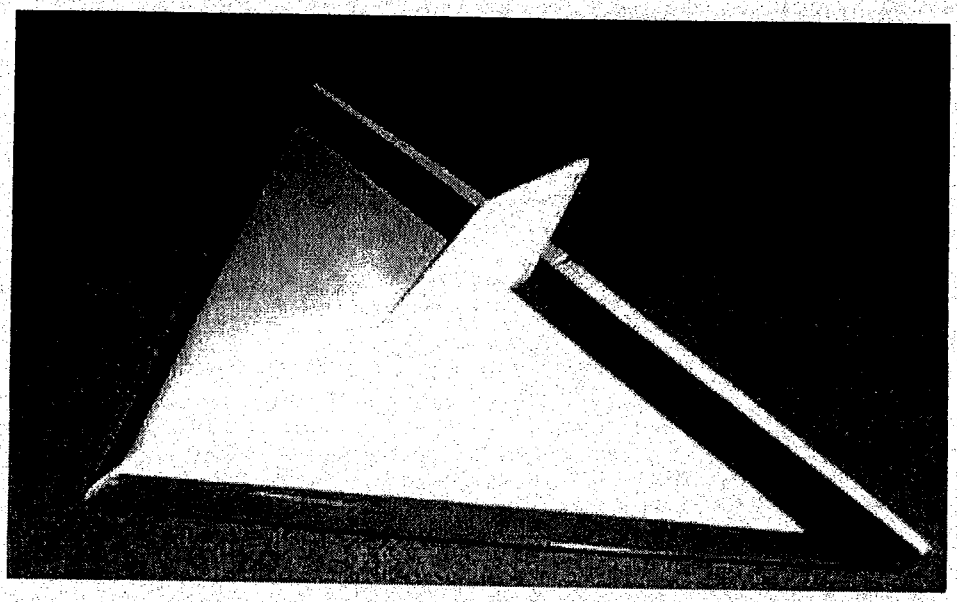
3) Due to problems with falling membership of clubs in general, Neil Davidson suggested that contact should be made with other clubs in the area with a view to holding joint meetings and competitions. This is to be pursued by George Whelan.

4) Tuesday night flying for the year 2000 will revert to the slope and thermal flying at Calder Park will be held on Saturdays.

The meeting was concluded at 21:45 with a vote of thanks for the outgoing committee.

Welcome to Pibros!

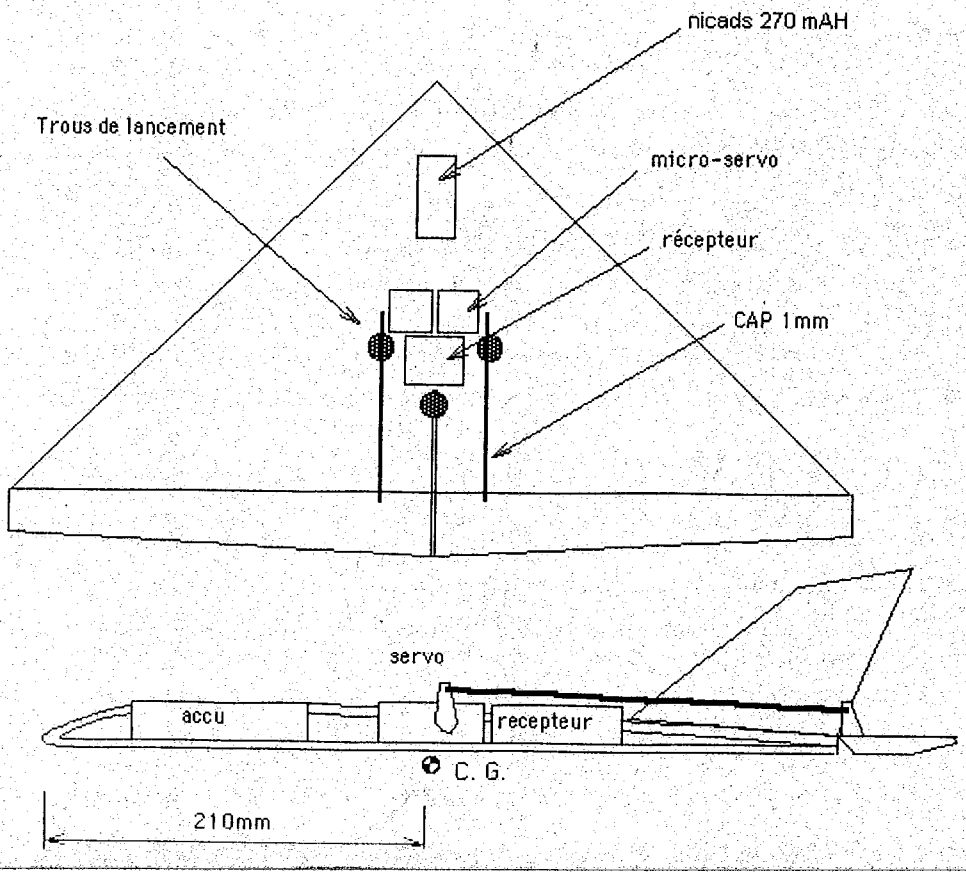
What is Pibros? Pibros a cheap simple foamie for fun/combat slope soaring, designed by Frenchman **Marcel Guwang.**



"I had my first introduction to the **Pibros** in March of 1997 at the Spanish F3F at Arilla. The French F3F team brought five of these delightful craft to the event.

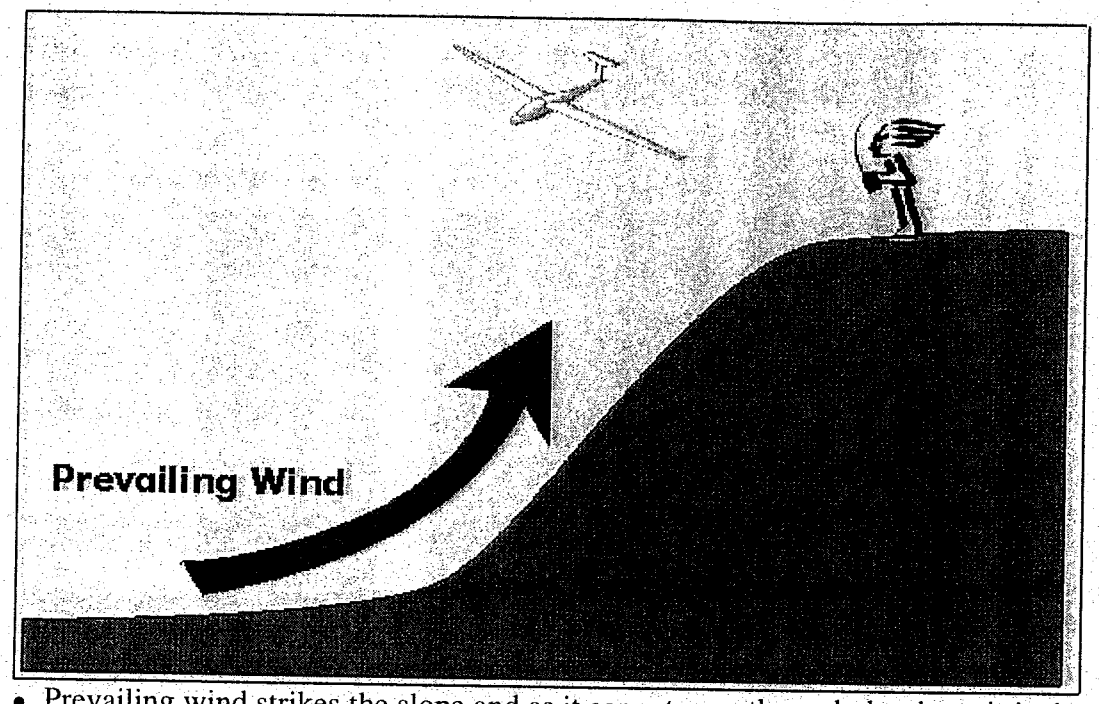
What is great about the Pibros is that there is no fear about handing the sticks to another pilot. **There is little chance that irreparable damage can be sustained.**

As far as flight performance goes, I wasn't disappointed. **The hardest part was handing back the controls. I was hooked, I wanted one and I wanted one now!"**



How Slope Soaring works!

(basically anyway)



- Prevailing wind strikes the slope and as it cannot pass through the slope, it is then forced up and over.
- It is in this section of upward moving air that LIFT is produced.
- The amount of lift produced is dependant on certain factors, such as windspeed, shape of the slope and air temperature. A wind of 30km/h is sufficient to create a updraught of 30km/h, which is why slope soarers are able to attain height quickly and then dive down, converting the height into speed.
- A slope where the wind strikes dead-on (perpendicular to the slope) is ideal, as a side-on wind will greatly reduce the amount of lift produced by the slope.
- A slope with a concave "Bowl" will compress the wind as it is funneled up the slope and create even better lift.
- A good prevailing wind will provide hours of lift for slope soaring.
- The lift-band can extend away from the slope for several hundred metres and way up above the top of the slope. This makes for a large flying area.
- As the wind recedes, the lift will start to drop-off and then it is time to head back to land on top of the slope.

LOCAL SLOPE SOARING SITES

Listed below are the more popular slope soaring sites used by ADS members together with access details and best wind direction. Any members whose favourite site is not mentioned please contact the committee so we can update our database. Map references are based on Ordnance Survey maps 38 and 45 in the Landranger Series.

ELRICK HILL

Wind 140 - 230 **OS Ref. NJ 850 105**

Access is via the **A96** Inverurie Road or the **A944** Alford Road. Turn off the A96 at Forrit Brae and proceed towards Brimond Hill or turn off the A944 at the sign to Blackburn and drive round the western edge of Brimmond. Elrick is situated on the north of Brimmond and has a distinctive clump of trees on the top. A small track leads you to the carpark at the foot of the hill and continues up to the flying site, the top of the hill has several picnic areas. The lift here is not usually very strong, probably because it is in the wind shadow of Brimond, although wave lift can sometimes be had to great heights. A good site for a quick flight.

BRIMMOND HILL

	Wind	OS Ref.
Eastern ridge	**070 - 130**	**NJ 855 091**
Southern ridge	**150 - 230**	**NJ 855 085**
SW ridge	**200 - 270**	**NJ 845 087**
NW bowl	**270 - 350**	**NJ 857 095**

Access is as for Elrick. There are 3 car parks available - one on the north east side, one beside Elrick, and one on the west opposite Westhill. Be careful of the radar dishes when flying on the eastern ridge.

DURRIS

Wind 280 - 340 **OS Ref. NO 757 901**

Access to the hill is from the **A957** Banchory - Stonehaven road via the road to Durris Mast. Turn off at the sign to 'Fountains Forestry' - proceed up this road and park in the clearing on the right hand side just short of the gate to the mast. A land-rover track takes you over the side of the hill and up to the top where you see the 'Fuerer's bunker - a handy windbreak for when conditions get rough. The lift on this slope is excellent but there may be hang gliders on the slope.

CAIRN 'O' MOUNT

Wind 130 - 180 **OS Ref. NO 656 806**

Access is by the **B974** Banchory - Fettercain road, the slope being located at the highest point on the road. Park at the cairn on the south side, the slope is immediately in front. Caution is required due to the proximity of the parked cars. The lift is excellent, and is often suitable because of the prevailing direction of the sea breeze that is often not strong enough at the coast. The lift is often supplemented by booming thermals, which come through on warm days.

BENNACHIE

Wind 280 350 & 050 - 150 **OS Ref. NJ 652 232**

Access is via the Chapel of Garioch road off the **A96** north of Inverurie and then to the sign-posted car park. Take the footpath leading to Mither Tap, turning off towards Craig Shannoch. At the turn off point there is an easterly bowl facing Inverurie. Ten minutes walk takes you across to the northwest bowl overlooking Insch. The walk up takes about 40 minutes but it is not strenuous, lift in the north west bowl is superb with easy landings.

HILL 'O' FARE

Wind 150 - 240 **OS Ref. NJ 688 033**

Access is off the **A980** Banchory - Torphins road. About 1 mile from the Raemoir Hotel is a sign to the right to Corfeidly Farm. Parking is available at the farm but please check with the farmer. Walk from here towards the hill of Corfeidly up a distinct track, past a small cottage to the disused quarry. Turn left at the quarry and then climb straight up through the bracken and then heather to the top.

HILL 'O' FARE BOWL

Wind 220 - 260 **OS Ref. NJ 669 027**

Access is again off the **A980**, but by turning left beyond Corfeidly at a small shop towards Milltown of Campfield. Park at Braeside Farm, again checking with the farmer. The walk is fairly long and steep but is well worth the climb. The bowl can also be reached from Corfeidly by following a track across the top of the hill.

STRATHFINELLA HILL

Wind 270 - 340 **OS Ref. NO 679 780**

Access is from the southern foot of the Cairn 'O' Mount **B974**. Take the road that runs through Glenshaugh to Auchenblae, park opposite the Brechin Fishing Area. Walk down the road and across a small ford at the western edge of the loch. Climb the hill immediately in front. Note that you have to cross a private area. The climb is steep but the lift is good.

BARMEKIN HILL

Wind 000 - 360 **OS Ref. NJ 726 072**

Take the A944 out of Aberdeen, through Westhills and turn left onto B977, a track on the right hand side leads upto the hill. Alternatively from the A944 bear left onto B911 then right onto B977. Track is then first left.

COASTAL SOARING SITES

FINDON

Wind 080 - 130 **OS Ref. NO 943 973**

Access is off the **A90** Stonehaven road at the Findon turn off, before reaching Porthlethen. Follow the signs to Findon village and on reaching a row of houses running SE to NW at the southern edge of the village turn right until you reach the Unilever Research Laboratory. Turn left here and drive until you reach Old Mill Road. Follow this road down a rough track and turn left between the new bungalows. Park next to the 'Cliffs are Perilous' sign, now walk about 200 yards to the edge of the cliff. There is an extremely deep gully at the northern edge of the cliff, no beach at the bottom. However the flying area is shallow allowing a moderate area for landing in front. ----------**NOT FOR BEGINNERS**----------

STONEHAVEN

Wind 090 - 150 **OS Ref. NO 883 861**

The site is reached from the old south road out of Stonehaven, taking the cliff top footpath from the top of the hill adjacent to the War Memorial. The cliff is to the south of the monument with a large field behind for landing. Parking is limited, if in doubt park at the harbour and walk up the cliff. There is a small beach at the bottom and the bowl is not very high, so landing can be achieved at the bottom with care.

St. CYRUS

Wind 090 - 170 **OS Ref. NO 755 643**

From the **A92** turn at the sign for St. Cyrus, turn left at the craft shop at the northern end of St. Cyrus village. Cross the disused railway line and take the road between the church and the primary school to the cliff edge. The cliff is 300 - 400 feet high, virtually sheer, with a small winding path down to a 4-mile long beach. Care is required when landing because of the severe 'curl over rotor' at the edge. The area is a nature reserve; you may also have to vie with hang gliders. Car parking is limited at the edge, so if in doubt park by the church. Superb lift and a good family site with shops, pub & beach.

SUMMARY OF SLOPE SITES

Map references are based on Ordnance Survey maps 38 & 45 in the Landranger Series. Wind direction assumes a 30 deg. swing either side of the hill centre line.

HILL	WIND DIR.	OS MAP REF
BRIMMOND		
East	070 - 130	NJ 855 091
South	150 - 230	NJ 855 085
SW	200 - 270	NJ 845 087
NW	270 - 350	NJ 857 095
BENNACHIE	280 - 350	NJ 652 232
Mither Tap	000 - 030	NJ 685 235
	030 - 060	NJ 682 224
	150 - 210	NJ 682 224
	310 - 030	NJ 675 235
HILL 'O' FARE	000 - 030	NJ 691 033
	110 - 180	NJ 685 027
	210 - 270	NJ 672 028
Meikle Tap	100 - 140	NJ 723 027
	220 - 260	NJ 717 027
	330 - 030	NJ 723 027
Greymore	330 - 090	NJ 709 038
Corfeidly	150 - 210	NJ 673 018
BARMEKIN		
NE	000 - 090	NJ 726 072
SE	090 - 180	NJ 726 072
S	165 - 195	NJ 726 072
SW	180 - 270	NJ 726 072
NW	270 - 360	NJ 726 072
ELRICK	140 - 230	NJ 850 105
DURRIS	280 - 340	NO 757 901
CAIRN 'O' MOUNT	130 - 180	NO 656 806
STRATHFINELLA	270 - 340	NO 679 780
STONEHAVEN	090 - 150	NO 883 861
FINDON	080 - 130	NO 943 973
ST. CYRUS	090 - 170	NO 755 643

GENERAL SOARING INFO

Even on a warm summers day standing in a breeze on a hillside can really cool you down due to wind chill factor. Always dress for the worst case, you can always take layers off. Some of the climbs up the slope can be quite wet so wellies or stout waterproof boots should be the order of the day. Shelter can be non existent, it pays to have a sheet of plastic to get under when a rain or snow squall comes through. Don't forget a hat, the majority of heat loss is through the head, some of us more than others. A flask with a hot drink and some snack food is an excellent way of fighting off the cold. One of the best items of clothing for staving off the cold while flying is a pair of fingerless woollen gloves, these can be had very cheaply in the outdoor shops in Aberdeen, I have seen them for as little as £1.99p and they are perfectly adequate for the task. See attached Wind Chill Factor table for info on how cold it really is.

Wind Chill

The wind chill index is, quite simply, a measure of the rate of heat loss. As anyone with experience in cold winter climates can attest, temperature is just one of several factors that determine outdoor comfort. Precipitation, sunlight, and wind all play important roles. The wind chill table below takes into account both temperature and wind speed.

The original work on wind chill was done by Antarctic explorers Paul Siple and Charles Passel in the winter of 1941 by measuring the amount of time it took a pan of water to freeze. They found that the rate of heat loss from the container could be determined from the air temperature and wind speed. There is some controversy over this methodology because its application to humans is not straightforward. Humans are more complex than a pan of water and respond differently depending on age, size, health, degree of physical activity, etc. However, the wind chill index can still be a useful rule-of-thumb for making decisions about outdoor activities.

Wind speed (knots)	Temperature (degrees Fahrenheit)														
0	**40**	**35**	**30**	**25**	**20**	**15**	**10**	**5**	**0**	**-5**	**-10**	**-15**	**-20**	**-25**	**-30**
5	36	30	25	19	14	8	3	-2	-8	-13	-19	-24	-30	-35	-40
10	26	20	13	7	1	-6	-12	-18	-25	-31	-37	-44	-50	-56	-63
15	20	13	6	-1	-7	-14	-21	-28	-35	-42	-49	-56	-63	-70	-77
20	16	9	2	-6	-13	-20	-28	-35	-42	-50	-57	-64	-72	-79	-86
25	13	6	-2	-9	-17	-25	-32	-40	-47	-55	-63	-70	-78	-85	-93
30	11	4	-4	-12	-20	-28	-35	-43	-51	-59	-66	-74	-82	-90	-98
35	10	2	-6	-14	-22	-30	-37	-45	-53	-61	-69	-77	-85	-93	-101
40	9	1	-7	-15	-23	-31	-39	-47	-55	-63	-71	-79	-87	-95	-103

Wind Chill Possible Effects

30°F or greater **Chilly**: Generally unpleasant
15°F to 30°F **Cold**: Unpleasant
0°F to 15°F **Very Cold**: Very unpleasant
-20°F to 0°F **Bitter Cold**: Frostbite possible
-20°F to -60°F **Extremely Cold**: Frostbite likely. Outdoor activity becomes dangerous
-60°F or less **Frigidly Cold**: Exposed flesh will freeze within half a minute.

The Beaufort Wind Scale

Beaufort Number	Description	Wind Speed			Observations
		MPH	KPH	Knots	
0	Calm	0	0	0	Tree leaves don't move; smoke rises vertically; sea is calm
1	Light Air	1-3	1-5	1-3	Tree Leaves don't move; smoke drifts slowly; weathervane inactive; sea is lightly rippled
2	Slight Breeze	4-7	6-11	4-6	Tree Leaves Rustle; flags wave slightly; can feel wind on your face; small wavelets or scale waves
3	Gentle Breeze	8-12	12-19	7-10	Leaves and twigs move around; small flags extended; long unbreaking waves
4	Moderate Breeze	13-18	20-29	11-16	Small branches move; flags flap; raises dust and paper; waves with some whitecaps .
5	Fresh Breeze	19-24	30-38	17-21	Small trees sway; flags flap and ripple; moderate waves with many whitecaps
6	Strong Breeze	25-31	39-50	22-27	Large branches sway; flags beat and pop; open wires (such as telegraph wires) begin to "whistle"; umbrellas are difficult to keep under control; larger waves with regular whitecaps
7	Moderate Gale	32-38	51-61	28-33	Whole trees sway; noticeably difficult to walk; large waves ("heaping sea")
8	Fresh Gale	39-46	62-74	34-40	Twigs break off trees; moderately high sea with blowing foam
9	Strong Gale	47-54	75-86	41-47	Branches break off trees; shingles blown from roofs; high crested waves
10	Whole Gale	55-63	87-101	48-55	Some trees blown down; damage to buildings; high churning white sea
11	Storm	64-74	102-120	56-63	Widespread damage to trees and buildings; these typically occur only at sea, and rarely inland; mountainous waves
12	Hurricane	75+	120+	64+	Extreme destruction; severe and extensive damage

"Tinker Toy" Balance Jig

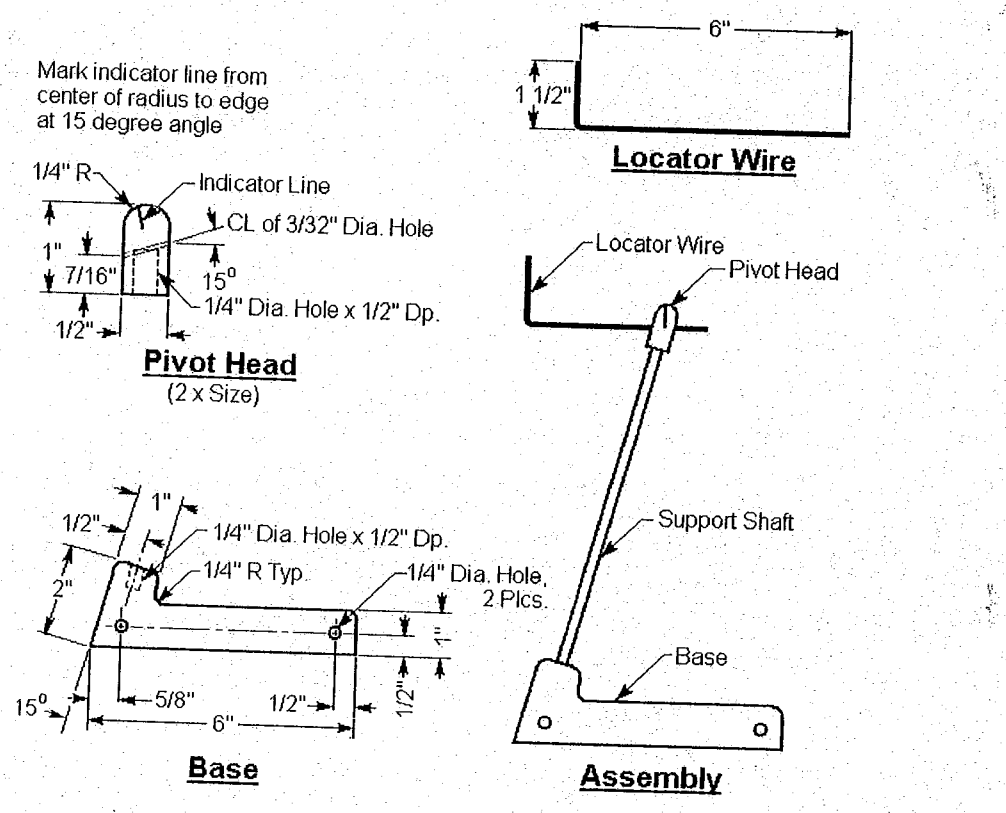
The performance of a model is directly dependent on how well it is balanced. It is difficult at best to balance a model without a means of supporting the model at the precise center of gravity. The use of the old method of supporting the model with a finger under each wing may be suitable for some of todays trainers but is not adequate for balancing a precision aerobatic model. Every modeler should have a fixture which will support a wide variety of models while allowing for hands free operation during balancing.

The "Tinker Toy" balance jig is easy to build from readily available materials using common tools. The skills required to construct this balance jig are well within those of many beginners. It is easy to assemble simply by slipping the shafts into the holes, hence the name "Tinker Toy". It is easy to set up for any model and accurately locates the center of gravity. It can be taken apart for storage.

Bill of Materials
Materials listed are for one (1) complete assembly

QUANTITY	DESCRIPTION
2	1/2" x 2" x 6" Plywood
2	1/2" x 1/2" x 1" Hardwood Block
2	3/32" Dia. Music Wire x 7 1/2" Lg.
2	1/4" Dia. Alum. Arrow Shaft x 8 1/2" Lg.
2	1/4" Dia. Alum. Arrow Shaft x 10" Lg.

Construction begins with obtaining the materials required. There is nothing critical about the items listed. These just seem to be the ones which work the best. A 1 x 6 board can be ripped to make the bases. A 1/4" hardwood dowel can be used in place of the arrow shaft but the assembly will not be as stiff. The dimensions of the assembly can be increased to accommodate larger models.



The bases are first cut from the selected material. The 1/4" holes for the support shaft are drilled at a 75 degree angle from horizontal. The bases should be stacked for drilling the 1/4" holes for the slide shafts to ensure proper alignment. The shafts should be a snug fit in the holes but should slide in the holes with little effort.

The pivot head is made by locating a point 1/4" from one end and on the center of the side. This is the center of the 1/4" radius. A line should be permanently marked at a 15 degree angle from this point to the end of the block. This is done on one side of one block and on the opposite side of the other so there is a right and a left pivot head. Next, the 1/4" hole is drilled in the center of the block on the opposite end from the reference line. The 3/32" hole for the locator wire is drilled at a 15 degree angle at the location shown centered in the block. Finally, the 1/4" radius is cut and sanded on the top end of the block.

The locator wire is made simply by bending the 3/32" music wire according to the detail. The inside radius of the bend should not be less than the diameter of the wire. The bend should be at a near perfect 90 degree angle. The wire should be a snug fit in the hole in the pivot head.

To use the jig, the distance from the leading edge of wing to the center of gravity is measured from the plans of the model. This distance is set by moving the locator wire so that the distance from the indicator line to the back side of the locator wire is set to the required dimension. The distance between the pivot heads should be set to clear the fuselage by sliding the bases on the slide shafts. Finally, the model is set on the pivot heads with the locator wire just touching the leading edge of the wing. Balancing the model can commence.

That is all that is required to produce a balance jig for trouble free operation. It is inexpensive, easy to build, easy to use, and easy to store. Put simply, building and using the "Tinker Toy" balance jig is child'splay.