



I Don't Know			
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### 0003. Australian Field Round

A discussion paper for Archery Australia.

#### Overview

It is the humble opinion of the author that the rounds of field archery conducted by Archery Australia need to be addressed. Currently there are two to choose from. The first is the Australian Field Round which is still listed in the rules but to our knowledge is rarely shot. The second is the FITA Field round. This seems to be the preferred recreational and competitive round of Archery Australia.

In competition to these are the IFAA round and the 3DAAA round. We feel we need to increase the participation of field archery throughout Australia and would like to make some recommendations to address the objective.

The purpose of this proposal is to update the existing Australian Field Round with a round that combines as many of the best components of FITA Field, IFAA and 3D as possible. Our proposal is to change the Australian Field Round and make it a direct competitor of the FITA Field and IFAA rounds. The primary thrust of this discussion paper is to create a recreational and competitive alternative to FITA Field and IFAA.

#### Investigations and Presumptions

When we look at FITA field archery we get the general impression that it is much more difficult than target and indoor archery.

If we look at indoor archery we can see the 40cm face is shot at 18 metres for adults. For these examples we shall primarily discuss adult distances. If we divide the size of the face by the distance we get a difficulty factor (DF), being the number of centimetres of face per metre of the distance presented to us at any given location.

The indoor 40cm target face at 18 metres has a DF of 2.22. This is the number of centimetres of the face that is in perspective. An indoor 40cm face moved back to 30 metres is, 40 divided by 30, equalling a DF of 1.33. So we can see that the further you move away from a face the smaller its perspective gets, or, the harder it is to see and the harder it is to score well on. So the smaller the DF the harder the shot.

We have 2 examples.

- A 30 metre field shot on a 40 cm face has a DF of 1.33 yet when we shoot an outdoor FITA we have an 80cm face at 30 metres with a rather generous DF of 2.67. The outdoor FITA is shot on open flat ground whilst the FITA field shot may be on a hill with potentially moving shadows.  
*Target DF 2.67, Field DF 1.33.*
- Next is to compare indoor to FITA field. An 18 metre indoor shot (flat, no wind, stable lighting) on a 40cm target face with a DF of 2.22. This versus a 20 metre, 20cm face field shot with a DF of 1.00.  
*Indoor DF 2.22, Field DF 1.00.*

So we ask the question, why is FITA Field so difficult? We suppose there are many reasons why FITA have gone down this path and the obvious one was to keep the scores under the maximum.

In outdoor target it is becoming commonplace for a perfect score to be shot at 30 metres with compounds and recurves. When compound bows started achieving 360 points in the field, FITA decided to introduce the 6 ring. This has certainly stopped the maximum score from being achieved.

So by making the faces small, then making all the scoring zones, except the centre, black and then introducing the 6 ring has made the whole event of FITA field more difficult than it needs to be. It is the opinion of this author that whilst FITA Field is an excellent competition round for the elite it has become too difficult for the recreational archer and ultimately it is the recreational archer we must be attracting if we are to build up the membership of archery in general.

The current black face with a yellow centre does not offer any assistance to point of aim shooters. It is suggested to have a variety of colours for each of the scoring zones to overcome this. All other archers that primarily aim at the gold centre would not gain or lose an advantage if the face had different coloured scoring zones.

In addition, we believe that properly promoted, Field Archery could be successful on television but we would need to have a more colourful face for it to be acceptable to the masses. Another reason for separate coloured rings is identifying line calls. Most would agree that around 80% of archers use black carbon arrows and using a mainly black face makes it unnecessarily difficult in identifying line calls even with the white dividing line.

### **The Other Field Rounds**

When we look at the games we play we must also look at the games the other archery bodies play. One of the most successful is IFAA with its larger 3 ring faces. If we look at the 65cm IFAA face it has a maximum score of 5 points on a 13cm spot. Our proposed round would have a 90cm face at similar distances with an 18cm spot. Their maximum score is their spot which is 13cm whereas our proposed maximum score of 10 points is only 9cm in size.

They also divide it into marked and unmarked.

The other game they play is the animal round with its 3 arrow version in the morning and a 1 arrow version in the afternoon.

Part of this proposal is to position the new Field Round as a replacement to the existing Australian Field round using the best components of FITA and IFAA. It is therefore hoped that current IFAA and FITA organisations would look favourably upon the Australian round for possible international acceptance and adoption.

## The New Face

The proposal is for a series of new faces being 30cm, 45cm, 60cm, 75cm and 90cm.

They would have 5 equal sized rings with the centre ring being divided into 2 scoring zones.

The new point value and colours would be;

10 points	Yellow	Pantone 107U
9 points	Yellow	Pantone 107U
8 points	Black	Pantone Process Black
7 points	Red	Pantone 032U
6 points	Black	Pantone Process Black
5 points	Light Blue	Pantone 306U
Outer	Black	Pantone Process Black

The 30cm and 45cm face shall be in a 2x2 square pattern.

The 60cm, 75cm and 90cm faces shall all be presented as a single face.

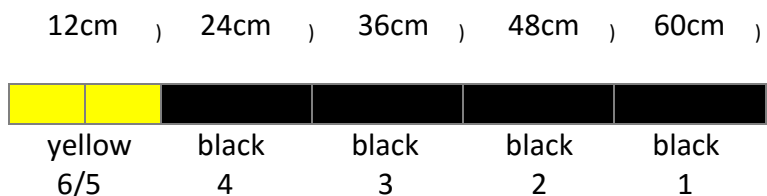
## Target Face Comparison

Shown below are some comparisons of the various target faces. I have tried to present them so the variations of the ring sizes and colours are noticeable between all the styles.

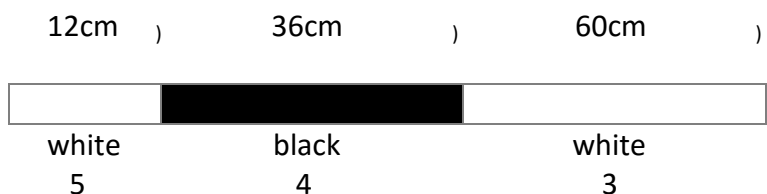
60cm indoor target face



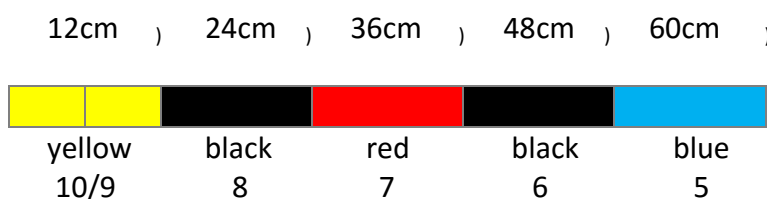
60cm FITA field face



65cm IFAA field face  
(reduced by 8% to 60cm)

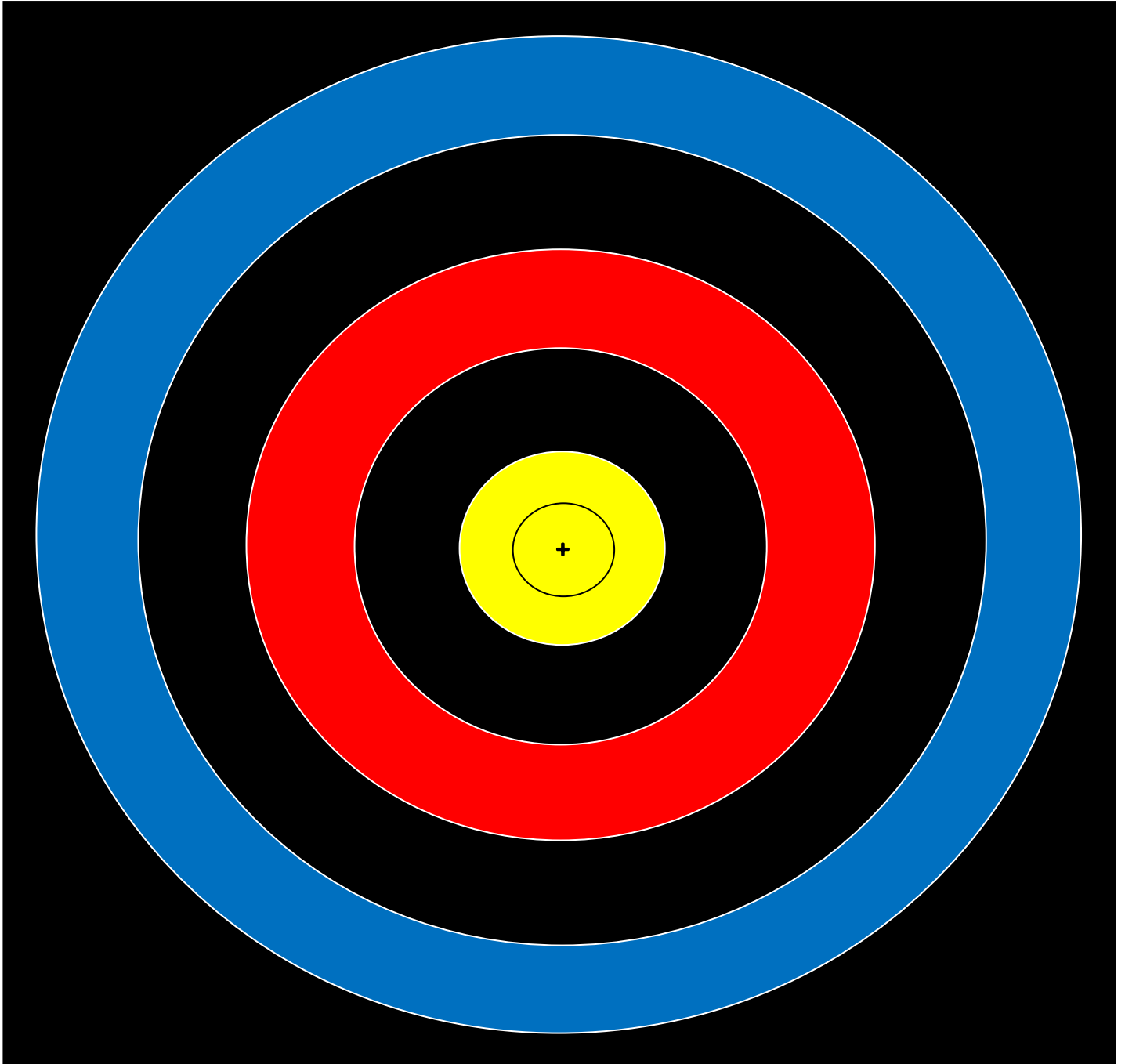


60cm proposed field face



## The New Field/Forest Face

A representation of the proposed Field Round/Forest Round face.



### **The Field Round**

The new unit shall be 10 targets, consisting of 2 targets at different distances for each of the 5 faces. Each target in the Field Round shall have 3 arrows shot at it. Maximum score per unit is 300 points. Maximum score for a standard course of 20 targets is 600 points. This should present the archer with a total that is more consumable than the existing 560 points, FITAs 432 points or IFAAs 560 points.

It is proposed to introduce a 1 arrow Field Round. This shall be exactly the same as the 3 arrow Field Round other than it shall only have 1 arrow shot at each target.

A day of shooting could now consist of a 60 arrow Field Round in the morning, lunch, and then the optional 10 or 20 arrow Field Round in the afternoon. Total number of arrows changes from 72 to either 60, 70 or 80 depending on whether the optional 1 arrow round of one or two units is used in the afternoon.

Distance walked changes from an average 1,800 metres to either 1,500 metres, 2,250 metres or 3,000 metres again depending on whether the optional 1 arrow round of one or two units is used in the afternoon. As a comparison, a 72 arrow Ranking Round is about 1,680 metres, a 90 arrow FITA 900 Round is about 1,500 metres and a FITA 90m is about 3,840 metres of walking.

### **The Forest Round**

It is proposed to introduce a new unmarked round entitled the Forest Round. It shall use the same faces as the Field Round. It shall be available as a 3 arrow round and a 1 arrow round.

### **The Animal Round**

It is proposed to introduce a new unmarked round entitled the Animal Round. It shall use the same distances as the Forest Round.

The shorter 2 groups shall have 4 faces in a 2x2 block and it is recommended they are manufactured that way. The larger 3 groups of faces shall only have one face per target. It shall have a series of animal faces depicting species that may be legally hunted in each region. It shall have 2 scoring areas being;

	1 <sup>st</sup> arrow	2 <sup>nd</sup> arrow	3 <sup>rd</sup> arrow
Inner	10 points	8 points	6 points
Outer	9 points	7 points	5 points

Arrows shall have distinctive 1cm rings with 1cm gaps between them and are shot in ascending order.

### **The 3D Round**

It is proposed to introduce a new unmarked round entitled the 3D Round. It shall use the same distances as the Forest and Animal Round.

It shall have a series of rubber animals depicting species that may be legally hunted in each region. It shall have 2 scoring areas being;

	1 <sup>st</sup> arrow	2 <sup>nd</sup> arrow	3 <sup>rd</sup> arrow
Inner	10 points	8 points	6 points
Outer	9 points	7 points	5 points

Arrows shall have distinctive 1cm rings with 1cm gaps between them and are shot in ascending order.

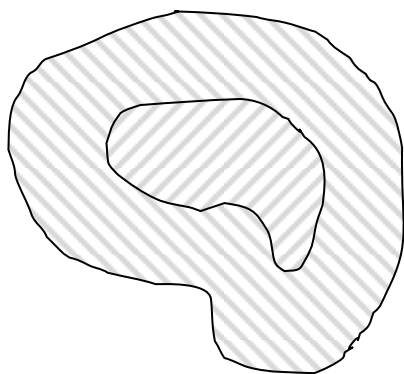
## The New Animal/3D Scoring Zone

One of the biggest problems in the animal and 3D rounds is equality and standardisation. Many years ago FITA had animal faces with a black centre dot and black rings. In essence it was just a coloured field face.

3D, and ABA have a similar problem in trying to produce equality into the target faces and 3D animals that are produced.

Our proposal is to create an inner shape that represents the kill zone with an outer shape that represents the wound area.

An example of this would be;



The outer wound area would be twice the area of the inner kill area. This would be in line with a regular target face where the 9 scoring zone is twice the area of the 10 scoring zone.

In the proposed rounds the target faces we have a 30cm face as a minimum and a 90cm face as a maximum.

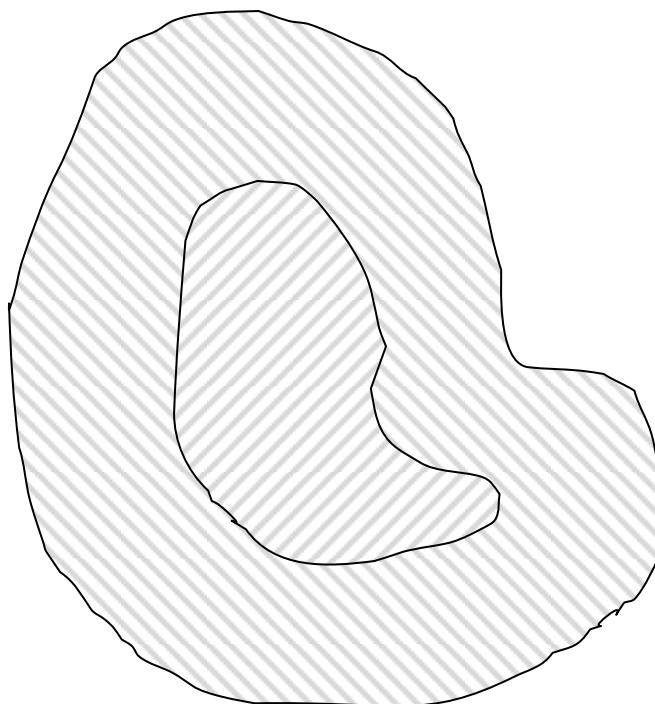
For the animal/3D zones we propose that the sizes be allocated as;

Size	Animal	3D
100%	30cm	Group 1
150%	45cm	Group 2
200%	60cm	Group 3
250%	75cm	Group 4
300%	90cm	Group 5

Once the shape has been designed and accepted then it is easy enough to enlarge it to the preset sizes.

Once you have the 5 sizes you can then rotate or flip the shape to suit the animal.

If we are to introduce a meaningful ratings and handicap system into animal face and 3D competitions then we need some equality and standardisation of the scoring zones.



### Distances By Face Size

		Field Round	Forest Round	Animal Round	3D Round
30cm face	blue peg	10m, 15m	5m - 15m	5m - 15m	5m - 15m
	red peg	15m, 20m	10m - 20m	10m - 20m	10m - 20m
	yellow peg	15m, 20m	10m - 20m	10m - 20m	10m - 20m
45cm face	blue peg	15m, 20m	10m - 20m	10m - 20m	10m - 20m
	red peg	20m, 25m	15m - 25m	15m - 25m	15m - 25m
	yellow peg	25m, 30m	20m - 30m	20m - 30m	20m - 30m
60cm face	blue peg	25m, 30m	15m - 30m	15m - 30m	15m - 30m
	red peg	30m, 35m	20m - 35m	20m - 35m	20m - 35m
	yellow peg	35m, 40m	25m - 40m	25m - 40m	25m - 40m
75cm face	blue peg	30m, 35m	20m - 35m	20m - 35m	20m - 35m
	red peg	40m, 45m	30m - 45m	30m - 45m	30m - 45m
	yellow peg	45m, 50m	35m - 50m	35m - 50m	35m - 50m
90cm face	blue peg	35m, 40m	25m - 40m	25m - 40m	25m - 40m
	red peg	45m, 50m	35m - 50m	35m - 50m	35m - 50m
	yellow peg	55m, 60m	45m - 60m	45m - 60m	45m - 60m

### Distances By Peg Colour

		Field Round	Forest Round	Animal Round	3D Round
blue peg	30cm face	10m, 15m	5m - 15m	5m - 15m	5m - 15m
	45cm face	15m, 20m	10m - 20m	10m - 20m	10m - 20m
	60cm face	25m, 30m	15m - 30m	15m - 30m	15m - 30m
	75cm face	30m, 35m	20m - 35m	20m - 35m	20m - 35m
	90cm face	35m, 40m	25m - 40m	25m - 40m	25m - 40m
red peg	30cm face	15m, 20m	10m - 20m	10m - 20m	10m - 20m
	45cm face	20m, 25m	15m - 25m	15m - 25m	15m - 25m
	60cm face	30m, 35m	20m - 35m	20m - 35m	20m - 35m
	75cm face	40m, 45m	30m - 45m	30m - 45m	30m - 45m
	90cm face	45m, 50m	35m - 50m	35m - 50m	35m - 50m
yellow peg	30cm face	15m, 20m	10m - 20m	10m - 20m	10m - 20m
	45cm face	25m, 30m	20m - 30m	20m - 30m	20m - 30m
	60cm face	35m, 40m	25m - 40m	25m - 40m	25m - 40m
	75cm face	45m, 50m	35m - 50m	35m - 50m	35m - 50m
	90cm face	55m, 60m	45m - 60m	45m - 60m	45m - 60m

### Difficulty Factor Chart (unmarked)

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
01	<b>O</b>	FITA unmarked			ave.	difficulty	variation		<b>P</b>	forest round			ave.	difficulty	variation
02	cm	yellow peg							cm	blue peg					
03	20	5	to	10	7.5	2.67			30	5	to	15	10.0	3.00	
04							0.53								0.00
05	40	10	to	15	12.5	3.20			45	10	to	20	15.0	3.00	
06						2.94								3.00	
07	60	15	to	25	20.0	3.00			60	15	to	30	22.5	2.67	
08							0.09		75	20	to	35	27.5	2.73	0.10
09	80	20	to	35	27.5	2.91			90	25	to	40	32.5	2.77	
10						2.96								2.72	
11						<b>2.94</b>								<b>2.83</b>	
12	<b>Q</b>	FITA unmarked			ave.	difficulty	variation		<b>R</b>	forest round			ave.	difficulty	variation
13		blue peg								red peg					
14	20	5	to	10	7.5	2.67			30	10	to	20	15.0	2.00	
15							0.00								0.25
16	40	10	to	20	15.0	2.67			45	15	to	25	20.0	2.25	
17						2.67								2.13	
18	60	15	to	30	22.5	2.67			60	20	to	35	27.5	2.18	
19							0.54		75	30	to	45	37.5	2.00	0.18
20	80	30	to	45	37.5	2.13			90	35	to	50	42.5	2.12	
21						2.40								2.10	
22						<b>2.53</b>								<b>2.11</b>	
23	<b>S</b>	FITA unmarked			ave.	difficulty	variation		<b>T</b>	forest round			ave.	difficulty	variation
24		red peg								yellow peg					
25	20	10	to	15	12.5	1.60			30	10	to	20	15.0	2.00	
26							0.40								0.20
27	40	15	to	25	20.0	2.00			45	20	to	30	25.0	1.80	
28						1.80								1.90	
29	60	20	to	35	27.5	2.18			60	25	to	40	32.5	1.85	
30							0.40		75	35	to	50	42.5	1.76	0.14
31	80	35	to	55	45.0	1.78			90	45	to	60	52.5	1.71	
32						1.98								1.78	
33						<b>1.89</b>								<b>1.82</b>	



### Difficulty Factor Chart (marked)

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
34	<b>U</b>	FITA marked			ave.	difficulty	variation		<b>V</b>	field round			ave.	difficulty	variation
35		yellow peg								blue peg					
36	20	5	10	15	10.0	2.00			30	10	and	15	12.5	2.40	
37							0.67								0.17
38	40	10	15	20	15.0	2.67			45	15	and	20	17.5	2.57	
39						2.34								2.49	
40	60	20	25	30	25.0	2.40			60	25	and	30	27.5	2.18	
41							0.11		75	30	and	35	32.5	2.31	0.22
42	80	30	35	40	35.0	2.29			90	35	and	40	37.5	2.40	
43						2.35								2.30	
44						<b>2.34</b>								<b>2.37</b>	
45	<b>W</b>	FITA marked			ave.	difficulty	variation		<b>X</b>	field round			ave.	difficulty	variation
46		blue peg								red peg					
47	20	5	10	15	10.0	2.00			30	15	and	20	17.5	1.71	
48							0.00								0.29
49	40	15	20	25	20.0	2.00			45	20	and	25	22.5	2.00	
50						2.00								1.86	
51	60	30	35	40	35.0	1.71			60	30	and	35	32.5	1.85	
52							0.07		75	40	and	45	42.5	1.76	0.13
53	80	40	45	50	45.0	1.78			90	45	and	50	47.5	1.89	
54						1.75								1.83	
55						<b>1.87</b>								<b>1.84</b>	
56	<b>Y</b>	FITA marked			ave.	difficulty	variation		<b>Z</b>	field round			ave.	difficulty	variation
57		red peg								yellow peg					
58	20	10	15	20	15.0	1.33			30	15	and	20	17.5	1.71	
59							0.27								0.07
60	40	20	25	30	25.0	1.60			45	25	and	30	27.5	1.64	
61						1.47								1.68	
62	60	35	40	45	40.0	1.50			60	35	and	40	37.5	1.60	
63							0.05		75	45	and	50	47.5	1.58	0.03
64	80	50	55	60	55.0	1.45			90	55	and	60	57.5	1.57	
65						1.48								1.58	
66						<b>1.47</b>								<b>1.62</b>	

## The Difficulty Factor In Detail

What is the real difference between current FITA Field round and the proposed Australian Field round? The proposal attempts to change the size of the field faces and their distances using a logical, mathematical approach.

Any 2 objects of the same size will have a different perspective at different distances. However, take two objects of different sizes and place them at the correct distance apart they shall look the same size, or, for the purposes of this document, they shall have the same DF.

The challenge of unmarked FITA field is calculating the distance by firstly identifying the face. This is reasonably easy as you only have to choose between the 60cm and the 80cm face. The new round has a 60cm, 75cm and a 90cm face and are set at varying distances in an attempt to make the faces all look the same size. The new round also introduces the 30cm and 45cm faces presented in a 2x2 square.

### Difficulty Factor Chart - Forest Round - Blue Peg

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
01	<b>O</b>	FITA unmarked			ave.	difficulty	variation		<b>P</b>	forest round			ave.	difficulty	variation
02	cm	yellow peg							cm	blue peg					
03	20	5	to	10	7.5	2.67			30	5	to	15	10.0	3.00	
04							0.53								0.00
05	40	10	to	15	12.5	3.20			45	10	to	20	15.0	3.00	
06						2.94								3.00	
07	60	15	to	25	20.0	3.00			60	15	to	30	22.5	2.67	
08							0.09		75	20	to	35	27.5	2.73	0.10
09	80	20	to	35	27.5	2.91			90	25	to	40	32.5	2.77	
10						2.96								2.72	
11						<b>2.94</b>								<b>2.83</b>	

An example of the 4 face targets is best represented by the new blue peg in the Forest Round. This shows that the average distance of the 30cm face is a DF of 3.00 and that the average distance of the 45cm face is also a DF of 3.00 thereby having a zero variance. (cell N04). By having 2 sets of targets both with 4 faces on it presents a new short range challenge the existing FITA round has never provided.

On the single faces the variation is slightly greater for the new round compared to the old round. The overall difficulty of the current face is shown at cell F11. The overall difficulty of the proposed round is slightly higher and is shown at cell M11.

### Difficulty Factor Chart - Forest Round - Red Peg

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
12	<b>Q</b>	FITA unmarked			ave.	difficulty	variation		<b>R</b>	forest round			ave.	difficulty	variation
13		blue peg								red peg					
14	20	5	to	10	7.5	2.67			30	10	to	20	15.0	2.00	
15							0.00								0.25
16	40	10	to	20	15.0	2.67			45	15	to	25	20.0	2.25	
17						2.67								2.13	
18	60	15	to	30	22.5	2.67			60	20	to	35	27.5	2.18	
19							0.54		75	30	to	45	37.5	2.00	0.18
20	80	30	to	45	37.5	2.13			90	35	to	50	42.5	2.12	
21						2.40								2.10	
22						<b>2.53</b>								<b>2.11</b>	

The variation of perspective on the current round is zero (cell G15) however, they are 2 different types of face (20 cm and 40cm) and are therefore easy to pick. The proposed round has two faces that are presented in the same fashion with a variation of only 0.25 between them (cell N15). These should present a challenge as the average distance between the 2 faces is around 5 metres.

If we look at the unmarked FITA blue pegs for a moment you shall see at cell F20 the DF for the 80cm face being 2.13. The new Forest round now presents 3 faces at an average DF of 2.10. The unmarked FITA had a variance of 0.54 (cell G19) between 2 faces whereas the Forest Round is a variance of 0.18 between 3 faces (cell N19). This means the new faces shall present a perspective similar to the existing 80cm face at 37.5 metres.

The overall difficulty is increased from 2.53 (cell F22) to 2.11 (cell M22).

## Difficulty Factor Chart - Forest Round - Yellow Peg

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
23	<b>S</b>	FITA unmarked			ave.	difficulty	variation		<b>T</b>	forest round			ave.	difficulty	variation
24		red peg								yellow peg					
25	20	10	to	15	12.5	1.60			30	10	to	20	15.0	2.00	
26							0.40								0.20
27	40	15	to	25	20.0	2.00			45	20	to	30	25.0	1.80	
28						1.80								1.90	
29	60	20	to	35	27.5	2.18			60	25	to	40	32.5	1.85	
30							0.40		75	35	to	50	42.5	1.76	0.14
31	80	35	to	55	45.0	1.78			90	45	to	60	52.5	1.71	
32						1.98								1.78	
33						<b>1.89</b>								<b>1.82</b>	

If we look at the average distance against each yellow peg single face we get a DF for the 60cm of 1.85, 75cm of 1.76 and 90cm of 1.71. If we add them up and divide by 3 we get an average DF for this group of faces of 1.78 (cell M32). Above that, in cell N30, we have a figure of 0.14. This is the variation between the lowest DF and the highest DF in this group. It is this variation that we are interested in and the closer to 0.00 it is, the harder it is going to be to pick the difference between the faces.

If we compare the average distance shot on the unmarked FITA Field red peg on a 80cm face we get a DF of 1.78 (cell F31). So if you have ever shot FITA Field at 45m on an 80cm face then you have a fair idea of the picture we are trying to paint. The new Forest Round now presents you with 3 different sized faces with an average DF of 1.78 (cell M32). When we look at the unmarked FITA red peg 60cm face perspective we get a DF of 2.18 (cell F29). When shooting unmarked FITA field from the red peg you had two faces to choose from with a variation of 0.40 (cell G30). Now you shall have 3 faces with a variation of 0.14 (cell N30).

In the unmarked FITA round the red peg 60cm face has a minimum distance of 20m and a maximum of 35m. The 80cm face has a 35m minimum and a 55m maximum. If you could pick the size of the face you had a fair chance of getting the distance correct. The new unmarked Forest round gives you 3 faces that are closely matched in perspective making it harder to choose between them as well as crossover distances. 60cm face gives you 25m to 40m, 75cm face gives you 35 to 50m and the 90cm face gives you 45m to 60m.

The overall difficulty is increased from 1.89 (cell F33) to 1.82 (cell M33).

### Difficulty Factor Chart - Field Round - Blue Peg

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
34	<b>U</b>	FITA marked			ave.	difficulty	variation		<b>V</b>	field round			ave.	difficulty	variation
35		yellow peg								blue peg					
36	20	5	10	15	10.0	2.00			30	10	and	15	12.5	2.40	
37							0.67								0.17
38	40	10	15	20	15.0	2.67			45	15	and	20	17.5	2.57	
39						2.34								2.49	
40	60	20	25	30	25.0	2.40			60	25	and	30	27.5	2.18	
41							0.11		75	30	and	35	32.5	2.31	0.22
42	80	30	35	40	35.0	2.29			90	35	and	40	37.5	2.40	
43						2.35								2.30	
44						<b>2.34</b>								<b>2.37</b>	

There is little difference in the current marked yellow peg round to the proposed marked blue peg round. The overall difficulty is marginally easier for this group.

### Difficulty Factor Chart - Field Round - Red Peg

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
45	<b>W</b>	FITA marked			ave.	difficulty	variation		<b>X</b>	field round			ave.	difficulty	variation
46		blue peg								red peg					
47	20	5	10	15	10.0	2.00			30	15	and	20	17.5	1.71	
48							0.00								0.29
49	40	15	20	25	20.0	2.00			45	20	and	25	22.5	2.00	
50						2.00								1.86	
51	60	30	35	40	35.0	1.71			60	30	and	35	32.5	1.85	
52							0.07		75	40	and	45	42.5	1.76	0.13
53	80	40	45	50	45.0	1.78			90	45	and	50	47.5	1.89	
54						1.75								1.83	
55						<b>1.87</b>								<b>1.84</b>	

As above. This is an example of trying to maintain the competitive nature of the current field round but with using bigger faces in the proposed round. The difficulty on the smaller faces is a little harder because the average distance is longer but this is mostly offset by using the bigger faces.

On the single faces the overall difficulty is easier and to some extent that is what we are trying to achieve. If Field is going to be shot by more people then it must be enjoyable to the masses, not just the elite.

The overall difficulty is increased from 1.87 (cell F55) to 1.84 (cell M55).

## Difficulty Factor Chart - Field Round - Yellow Peg

	A	B	C	D	E	F	G		H	I	J	K	L	M	N
56	<b>Y</b>	FITA marked			ave.	difficulty	variation		<b>Z</b>	field round			ave.	difficulty	variation
57		red peg								yellow peg					
58	20	10	15	20	15.0	1.33			30	15	and	20	17.5	1.71	
59							0.27								0.07
60	40	20	25	30	25.0	1.60			45	25	and	30	27.5	1.64	
61						1.47								1.68	
62	60	35	40	45	40.0	1.50			60	35	and	40	37.5	1.60	
63							0.05		75	45	and	50	47.5	1.58	0.03
64	80	50	55	60	55.0	1.45			90	55	and	60	57.5	1.57	
65						1.48								1.58	
66						<b>1.47</b>								<b>1.62</b>	

If you look at cell F61 you shall see the average DF for the shorter red pegs in the FITA round is 1.47. The new Field Round has a much more comfortable DF of 1.68 (cell M61). The longer face DF in the red peg FITA is 1.48 (cell F65) compared to the new round DF of 1.58 (cell M65).

### Equality

We have purported that we believe the existing FITA Field round is more difficult than it needs to be. If we look at the overall difficulty for each peg colour in the existing marked rounds we get a DF of 2.34 (cell F44), 1.87 (cell F55) and 1.47 (cell F66). The difference between these three peg colours is 0.98 and that is really the difficulty between the yellow peg and the red peg. Yes, red peg archers have sights and yellow peg archers do not but surely the difficulty between them should be closer. The red peg archers receive a lot of the difficulty by having longer distances so what we are seeking is to try and bring the challenge for each peg colour closer together.

With the proposed round we have a DF of 2.37 (cell M44), 1.84 (cell M55) and 1.62 (cell M66). The difference between these 3 is now 0.75. Certainly not perfect but a little closer than the existing round.

Furthermore, the average DF over all 3 peg colours in the existing round is 1.89. The average DF over all 3 peg colours on the proposed round is 1.94. So we believe we have met our objectives of trying to make the rounds of Field easier yet still maintaining a competitive approach.

### Summary

We mentioned earlier the difficulty a 20m target with a 20cm face was. It is unrealistically small and very intimidating to the newer archer shooting from the red peg. If we look at Group Y we shall see the 20cm face has an average DF of 1.33 (F58). The new Forest Round has a much bigger face but its average distance is further away giving it a more comfortable average DF of 1.71 (M58). If we look at the current 20m shot in isolation it is the most difficult with a DF of 1.00. The replacement shot is a 20m distance on a 30cm face with a DF of 1.50.

The Forest and Animal rounds has two types of target faces. The shorter ones all have 4 faces per target and a minimum to maximum variance of 10 metres. The longer targets have 1 face per target and have a minimum to maximum variance of 15 metres.

You may also note that the shortest distance for the more powerful bows in the marked round is 15m. This is an intentional effort to protect the arrows and the target butts.

## Understanding The IFAA Face

On average, the IFAA face overall dimensions are smaller than a FITA face and much smaller than the proposed faces. However, if we look at the maximum score area for each face we get a highly different viewpoint.

The longest shot in IFAA is 73m placed in a 4 arrow walk-up which makes the average for the target 59.5m. Their longest 4 arrow target is 59.1m. The average for these two targets is therefore 59.3m. This is shot on a 65cm face making the DF 1.10. A maximum FITA red peg shot of 60m on an 80cm face has a DF of 1.33. The proposed new shot would be 60m on a 90cm face with a DF of 1.50.

On field faces we have an aiming spot. The actual size for each of the largest faces is;

IFAA	13cm
FITA	16cm
Proposed	18cm

On field faces we have a maximum scoring area. The actual size for each of the largest faces is;

IFAA	13cm
FITA	8cm
Proposed	9cm

On field faces we also have a minimum scoring area. When you miss the centre of the target and hit the outer scoring zone you get;

IFAA	3 points	60% of maximum
FITA	1 point	17% of maximum
Proposed	5 points	50% of maximum

If we compare the marked, adult average distance for each size face in IFAA against the FITA round and proposed round we get;

### Marked Face Comparison

IFAA Face	Ave. Distance	Difficulty Factor		FITA Face	Ave. Distance	Difficulty Factor		Proposed Face	Ave. Distance	Difficulty Factor
20cm	8.35m	2.40		20cm	15.0	1.33		30cm	17.5m	1.71
35cm	20.5m	1.71		40cm	35.0	1.14		45cm	27.5m	1.64
50cm	41.5m	1.20		60cm	40.0	1.50		60cm	37.5m	1.60
								75cm	47.5m	1.58
65cm	55.7m	1.17		80cm	55.0	1.45		90cm	57.5m	1.57
Variation		1.23		Variation		0.36		Variation		0.14

You shall see by the variation row above that the proposed round presents the faces in a very similar way to each other. That means the perspective for each size face is much the same, meaning, they shall present a similar level of difficulty for each target face.

If we compare the unmarked, adult average distance for each size face in IFAA against the FITA round and proposed round we get;

### Unmarked Face Comparison

IFAA Face	Ave. Distance	Difficulty Factor		FITA Face	Ave. Distance	Difficulty Factor		Proposed Face	Ave. Distance	Difficulty Factor
20cm	10.0m	2.00		20cm	12.5	1.60		30cm	15.0	2.00
35cm	20.7m	1.69		40cm	20.0	2.00		45cm	25.0	1.80
50cm	39.0m	1.28		60cm	27.5	2.18		60cm	32.5	1.85
								75cm	42.5	1.76
65cm	52.2m	1.25		80cm	45.0	1.78		90cm	52.5	1.71
Variation		0.75		Variation		0.40		Variation		0.29

If we look at the unmarked face table and compare IFAA to what I am proposing it appears IFAAs larger faces are harder to score on as their DF is 1.28 and 1.25 respectively against the proposed rounds DF of 1.85, 1.76 and 1.71. However, this is a comparison of overall face size and because the proposed face sizes are so much larger they are easier to see and easier to hit. But can you score well on them?

### Unmarked Maximum Scoring Area Comparison

IFAA Face	Ave. Distance	Difficulty Factor		FITA Face	Ave. Distance	Difficulty Factor		Proposed Face	Ave. Distance	Difficulty Factor
4.0cm	10.0m	0.40		2.0cm	12.5	0.16		3.0cm	15.0	0.20
7.0cm	20.7m	0.34		4.0cm	20.0	0.20		4.5cm	25.0	0.18
10.0cm	39.0m	0.26		6.0cm	27.5	0.22		6.0cm	32.5	0.19
								7.5cm	42.5	0.18
13.0cm	52.2m	0.25		8.0cm	45.0	0.18		9.0cm	52.5	0.17
Variation		0.15		Variation		0.06		Variation		0.03

Because the IFAA maximum score area is so large compared to a FITA face and the proposed face, the chance of hitting it increases dramatically. To hit our proposed 10 point area is a DF of 0.19, 0.18 and 0.17 for our single faces. IFAA have a DF of 0.26 and 0.25 for their single faces. To summarise this point, our new faces are easier to see than IFAA and FITA. They are easier to score on than the current FITA face but still harder to score on than an IFAA face.

### Review

Looking at the existing FITA Field Round we have a marked red peg DF of 1.36 whilst the proposed Field Round has a corresponding DF of 1.62. That means the new round shall be easier to shoot as the average size of the face is larger even though the average distance is longer. In addition, the size of the maximum point scoring area has been increased from an average 5cm to an average 6cm.

With a shorter unit of only 30 arrows, in conjunction with the bigger faces and larger maximum point scoring area, the probability of an archer getting closer to the maximum score is increased. FITA introduced the X ring and then turned it into a 6 ring in an effort to reduce the possibility of a maximum score. We believe this has created an unnecessarily difficult round of field shooting especially for the average archer that populates some 80% of our membership.

So whilst the new round is designed to encourage more people to try Field shooting, and to create a serious contender to the IFAA round, it also presents the opportunity for a perfect score to be shot. If this happens, how do we find a winner?



### **Sudden Death Shoot-Off**

If several archers in medal winning positions come in with a tied score then the normal practise of counting back the 10's and 9's shall occur. If after this count-back the archers are still tied then a shoot-off is required. The archers, and hopefully the rest of the contestants, proceed to a 90cm face set at the maximum distance for each of the coloured pegs.

All blue peg archers shall complete their shoot-off before the red peg archers do theirs then followed by the yellow peg archers.

The contest is 3 arrows at their maximum distance to determine the winner. If still tied, only one arrow is shot and the archer with the highest score or closest to the centre shall be declared the winner. If the arrows are deemed to be exactly the same distance from the centre then the one arrow process is continued until a winner is declared.

If three or more archers are vying for a particular medal and a winner is found but the other two or more archers are tying for the next place then those two or more archers shall start the sudden death shoot-off from the beginning until all the place winners are declared.

### **Standardisation**

To play any game you must know the rules. The FITA games of FITA field, forest round, unmarked field and 3Di do not relate to each other, nor is there any consistency in the approach of the rules. An example is the current maximum unmarked distance on a big rubber animal is 45m and yet the maximum distance on a smaller target face is 55m.

IFAA is much the same. On their paper animal round their one arrow scoring is 20, 16 and 12 points. On the 3D round it is 20, 16 and 10 points.

The proposed field round has many variants but we have attempted to apply a consistent and standard flavour to each of them. An example is all unmarked rounds have the same maximum distances for each size of face or size of animal and the minimum distance for each is 15m less on the single faces and 10m less on the multiple faces. So once you learn the rules for your peg colour they are consistent throughout all the games played.

The next is scoring values. All target faces are 10, 9, 8, 7, 6 and 5 points. All animal rounds on paper faces or 3D rubber animals are 10 and 9 for your first arrow, 8 and 7 for your second arrow and 6 and 5 points for your third arrow.

For your consideration.

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~ The primary focus of all obstacles is to induce labour so progression can be born~ "Lil' C"