



STATISTICAL REVIEW AND MATCH ANALYSIS

2010 TRI NATIONS

IRB GAME ANALYSIS



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This Report is divided into **2 sections**.

- Section 1 Takes a brief look at **constituent game elements** in Tri Nations 2010 and compares them to Tri Nations 2009, 2008 and 2007. It also includes a selection of each team's performance in specific areas of the Game.
- Section 2 Comprises a **detailed statistical analysis** of all 9 matches played in the tournament.

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2010 TRI NATIONS COMMENTARY

Over the last year or so, there has been an increasing debate over the shape of the modern Game especially at the highest levels.

The major core of this debate, and even concern, has revolved around two specific areas – the paucity of tries and the increasing prevalence of aerial kicking out of hand. This is not surprising since the evidence for this concern is not difficult to find.

In the case of tries, an examination of both the Tri Nations and 6 Nations competitions over the last 10 years shows that there has been a steady reduction in the number of tries being scored in each competition. This can be seen in the table:

In brief, the table shows that there were around 60%-70% more tries being scored at the beginning of the decade than at the end. This was the background to Tri Nations 2010.

This reducing trend however is no more.

One of the most striking characteristics of this year's Tri Nations was the number of tries that were scored, especially in comparison to last year.

52 tries were scored compared with 27 in 2009 – an increase of almost 100%

This produced an average of 5.8 tries per game, a figure that has been exceeded only once in the 15 years since the Tri Nations tournament was formed. And that one occasion was 13 years ago.

Another major contrast with last year, was the ratio of penalty goals to tries. While last year the scoring ratio was just over two and a half penalty goals to each try, this year the ratio was one to one. Furthermore, this year's ratio of tries to penalty goals has been exceeded only 3 times since 1996.

Therefore, an average of almost 6 tries per game is unusual and when any group of matches produces a large number of tries, the reason is often not difficult to find. It can happen because imbalances between teams can produce heavy defeats and a glut of tries. However, this was not the case in this year's Tri Nations. Despite almost twice as many tries being scored as last year, the 9 games were just as competitive as in previous years. Four of the matches had points differences in single figures and the 8 games with a points margin of 20 points or fewer was the same as last year.

The possible reasons for this increase in tries could be the result of many diverse factors or relatively few. One contributory factor could be the dramatic reduction in kicks from hand. While Tri Nations 2009, and earlier years, averaged around 60 per game, this year's Tri Nations averaged 37.

The figure was surprising not only because it bucked a trend, but because it produced an average kicks per game figure that was the lowest recorded since detailed game analysis started some two

Average no of tries scored

Year	6 Nations	Tri Nations
2001	5.0	5.3
2002	5.0	5.3
2003	5.0	5.0
2004	4.5	4.3
2005	4.7	4.3
2006	4.1	4.7
2007	3.3	3.2
2008	3.3	4.8
2009	3.7	3.0
2010	3.2	5.8

decades ago. Anecdotal data would further suggest the average of 37 was likely to be the lowest in living memory.

It was, however, not just the reduction in the number of kicks that was exceptional; it was also the extent of the change in the sort of kicks that were made.



Kicks can be broken down into various categories. They can include grubber kicks, chip kicks, kicks to touch and kicks directly into opposition territory. The latter category can then be broken down into 2 further categories. The first comprises kicks where the catcher is put under significant pressure by the kicker or his team - and the second occurs where the receiving player either catches or picks up the ball but there is no pressure on him, i.e. the counter attacking options of running, passing or kicking are all available to him.

And it is the number of kicks falling into this latter category that has fuelled the concern referred to above.

In certain recent Tier 1 matches, the number of kicks falling into this category have been as many as 53 in a single game. Thirty plus per game is far from uncommon. **By contrast, in this year's Tri Nations, there was one game where there was only one such kick. In 3 others there were just 6, 7 and 9. The average per game was 11.**

The extent of such differences are graphically illustrated in the following table which compares the Tri Nations figures with those that were seen in other Tier 1 internationals played over the last 12 months. The figures highlighted in red emphasise again the extent of the change:

		Kicks to Opposition Unchallenged			
		2010 6N 15 Matches	2009 Nov 14 Matches	2009 Tri N 9 Matches	2010 Tri N 9 Matches
most		53	42	29	21
		41	41	29	16
		34	33	26	15
		33	32	24	13
		32	32	22	11
		29	30	21	9
		28	29	21	7
		27	27	19	6
		25	26	17	1
		24	25		
		24	24		
		23	24		
		18	18		
	13	13			
least		12			
Average		28	28	23	11

The table shows how the role of kicking was transformed. Seldom, if ever, did a core element of the Game change to such a dramatic extent in such a short space of time. Of course, it may not be maintained. It may constitute no more than an alternative or optional playing approach to be determined by a team's playing resources and abilities. If however, the trend so graphically illustrated in this year's Tri Nations is maintained, then 2010 could prove to be a seminal moment in the shape of the Game.

The change in the volume of kicks had a wider impact however.

If the ball is not being kicked into the air then other actions are taking place, and so it was in Tri Nations 2010. The number of rucks and passes increased, and increased substantially.

Rucks and mauls went up by over 40% - from 131 per game to 186.

Passes went up by 35% - from 222 per game to 300. (the lowest passing game in 2010 was not much less than the highest passing game in 2009).

Therefore, the movement and physicality were noticeably greater in 2010 than 2009, and that in turn has other consequences; increased contact and movement puts greater physical demands on players.

Tri Nations 2010 could, therefore, be the precursor of a new range of challenges to both coaches and players.

This is not, however, a unique occurrence. The dynamic nature of the Game and its various elements have always produced challenges – and a short comparison of the Game that was seen in this year's Tri Nations with that played around 25 years ago indicates the spectacular changes that have taken place at the highest levels of the game over a relatively short period.

This has been done by comparing the key elements of Tri Nations 2010 with a group of 16 Tier 1 internationals played in the early 80s:

Game Elements	Early 1980s	2010 Tri Nations	Difference
Ball in play	30%	45%	Up 50%
Rucks/mauls per game	46	186	Up 400%
Passes per game	149	300	Up 100%
Kicks per game	76	37	Down 50%
Scrum per game	31	14	Down 50%
Lineouts per game	52	22	Down 60%

This shows that Rugby has moved from a Game where there were twice as many scrums and lineouts as rucks and mauls to one where rucks and mauls outnumber scrums and lineouts by a factor of 5. There have been huge changes in emphases and priorities. The interest now is to see if any further changes come about because of the reappraisal of the value of kicking as presented in Tri Nations 2010, and whether the fact that RWC2011 is less than 12 months away will be a determining factor.

2010 TRI NATIONS FINAL STANDINGS & RESULTS



	P	W	D	L	F	A	PD	BP	PTS
NEW ZEALAND	6	6	0	0	184	111	73	3	27
AUSTRALIA	6	2	0	4	162	188	-26	3	11
SOUTH AFRICA	6	1	0	5	147	194	-47	3	7

P = Played W = Won D = Draw L = Lost F = Points for A = Points against PD = Points difference
BP = Bonus Points PTS = Points

	NEW ZEALAND	32		SOUTH AFRICA	12
	NEW ZEALAND	31		SOUTH AFRICA	17
	AUSTRALIA	30		SOUTH AFRICA	13
	AUSTRALIA	28		NEW ZEALAND	49
	NEW ZEALAND	20		AUSTRALIA	10
	SOUTH AFRICA	22		NEW ZEALAND	29
	SOUTH AFRICA	44		AUSTRALIA	31
	SOUTH AFRICA	39		AUSTRALIA	41
	AUSTRALIA	22		NEW ZEALAND	23



2010 TRI NATIONS OVERALL STATISTICS

In certain core elements, 2010 Tri Nations showed major changes from 2009 Tri Nations as shown in the following comparisons. These have already been identified in the earlier Commentary and have been highlighted in the table below:

	2010 TRI NATIONS	2009 TRI NATIONS	2008 TRI NATIONS	2007 TRI NATIONS
Points	55	45	43	40
Tries	5.8	3.0	4.8	3.2
Penalty Goals	5.9	7.7	3.7	5.8
Drop Goals	0	0.7	0.4	0.7
Ball in Play	45%	42%	47%	46%
Passes	300	222	275	264
Ruck/Mauls	186	131	161	167
Kicks	37	60	67	59
Lineouts	22	24	24	30
Scrum	14	19	18	16
Pens/FKs	20	23	28	19





SECTION 1 – SUMMARY OF THE CONSTITUENT GAME ELEMENTS

The following data also comes from the detailed report that follows and reflects in summary form the modern Game as expressed through this year's Tri Nations championship:

	2010 TRI NATIONS	2009 TRI NATIONS	2008 TRI NATIONS	2007 TRI NATIONS
% of points from TRIES	53%	34%	56%	39%
% of points from PENALTY GOALS	32%	51%	25%	43%
% of points from CONVERSIONS	15%	10%	16%	13%
% of points from DROP GOALS	nil	5%	3%	5%
TRIES per game	5.8	3.0	4.8	3.2
PENALTY GOALS per game	5.9	7.7	3.7	5.8
DROP GOALS per game	none	0.7	0.4	0.7
TRIES SCORED BY BACKS	62%	85%	72%	68%
TRIES SCORED BY FORWARDS	38%	15%	28%	32%
MATCHES with point margin of 20 or less	8 of 9	8 of 9	7 of 9	5 out of 6
CONVERSION SUCCESS RATE	71%	78%	70%	79%
PENALTY GOAL SUCCESS RATE	82%	80%	69%	71%
DROP GOAL SUCCESS RATE	0%	32%	27%	50%
matches won by TEAM SCORING MOST TRIES	78%	56%	89%	50%
MATCHES WHERE TRIES EQUAL	22%	33%	11%	50%
matches won by TEAM SCORING LEAST TRIES	0%	11%	0%	0%
% of TRIES FROM LINEOUT POSSESSION	35%	15%	31%	32%
% of TRIES FROM SCRUM POSSESSION	14%	29%	21%	11%
% of TRIES FROM PENALTY/FREE KICKS	11%	15%	19%	5%
% of TRIES FROM TURNOVER/ERROR	12%	19%	9%	21%
% of TRIES FROM OPPONENTS KICKS	21%	11%	14%	26%
OTHER	7%	11%	6%	5%
BALL IN PLAY TIME	45%	42%	47%	46%
% of all PASSES MADE BY BACKS	34%	38%	36%	35%
% of all PASSES MADE BY SCRUM HALF	47%	41%	42%	40%
% of all PASSES MADE BY FORWARDS	19%	21%	22%	25%
% of LINEOUT POSSESSION RETAINED	84%	78%	80%	81%
% of SCRUM POSSESSION RETAINED	93%	88%	95%	91%
% of RUCK/MAUL POSSESSION RETAINED	94%	91%	89%	93%
YELLOW AND RED CARDS	9 yellow 1 red	8 yellow 0 red	2 yellow 0 red	6 yellow 0 red
REFERENCES TO TMO	9 in 9 games	5 in 9 games	13 in 9 games	6 in 6 games

2010 TRI NATIONS THE TEAMS PERFORMANCES

The report that follows comprises a picture of this year's Tri Nations. It shows the shape of the Game while noting each team's activities and performances in all critical areas of the Game.

It shows for example that;

- All teams scored more tries this year than last
- But **Australia** and **South Africa** conceded over twice as many tries in 2010 as in 2009
- Not one team kicked a drop goal. **South Africa** was the only team that even attempted drop goals
- **New Zealand** scored 8 tries from opposition kicks. **Australia** and **South Africa** scored 1 between them
- **South Africa** conceded 6 tries from their own kicks, **New Zealand** conceded 1 and **Australia** 2
- 11 or 50% of **New Zealand's** tries started from possession gained from inside their own half. **South Africa** scored 1 or 8%
- **New Zealand's** opponents scored 1 try from possession obtained from inside their own half. **South Africa** conceded 12
- **New Zealand** missed 15 kicks at goal – **South Africa** missed 2
- **Australia** obtained more possession than their opponents in 5 of their 6 matches
- **New Zealand** and **Australian** backs made 100% more passes than their forwards. **South Africa's** backs made only 24% more
- **South Africa** kicked 50% more often than **Australia**
- 3 of every 4 **New Zealand** restarts were kicked short. The majority of **Australia** and **South Africa's** were kicked long
- In 2009, **South Africa** had a success rate of almost 40% on their opponents lineout with 24 lineout steals. This year their overall success was under 10% with only 9 lineout steals
- **New Zealand** was by far the most heavily penalised team but conceded only 1 yellow card, compared with 4 each by **Australia** and **South Africa**

Further and far more extensive analysis can be found in the main report that follows.



2010 TRI NATIONS STATISTICAL ANALYSIS & MATCH ANALYSIS

1.0 SCORING

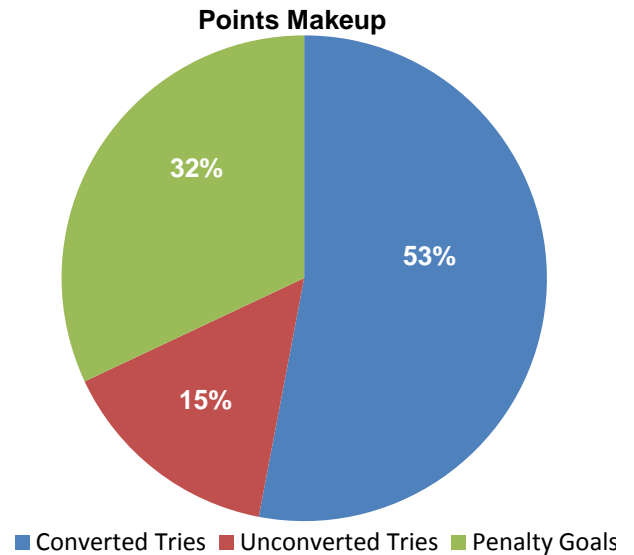
There were **493** points scored in the 9 matches played, giving an average of **55** points per game (2009 – 45). They were made up as follows:

	Type of Score	
	Total	Points
Converted Tries	37	259
Unconverted Tries	15	75
Penalty Goals	53	159
Drop Goals	0	0
		493

	% of points scored by Tries
	%
TRI N 2010	53%
TRI N 2009	34%
TRI N 2008	56%
TRI N 2007	39%
TRI N 2006	50%

Of the total points scored:

- 53% came from **TRIES** (2009 - 34%)
- 32% came from **PENALTY GOALS** (2009 - 51%)
- 15% came from **CONVERSIONS** (2009 - 10%)
- 0% came from **DROP GOALS** (2009 - 5%)



	Av Points	Av Tries	Conversion success rate	Av Pen Goals per game	Try : Penalty ratio	Av Drop Goals
TRI N 2010	55	5.8	71%	5.9	1 to 1.1	0
TRI N 2009	45	3.0	78%	7.7	1 to 2.6	0.7
TRI N 2008	43	4.8	70%	3.7	1 to 0.8	0.4
TRI N 2007	40	3.2	79%	5.8	1 to 1.8	0.7
TRI N 2006	46	4.7	76%	5.0	1 to 1.1	0.3

It can be seen above that the percentage of points scored by tries was the second highest in the last 5 years. Not surprisingly, points scored and conceded varied between the teams. The points scored and conceded by each team are shown below.

	Points For		Points Against		% of points from Tries		% of points from Kicks	
	Total	Average	Total	Average	2010	2009	2010	2009
	NEW ZEALAND AUSTRALIA SOUTH AFRICA	184	31	111	19	60%	32%	40%
	162	27	188	31	52%	39%	48%	61%
	147	25	194	32	44%	32%	56%	68%

1.1 WINNING MARGINS

The winning margins in each of the 9 matches fell into the following ranges. It shows that 8 of the 9 matches had margins of 20 points or less. Last year’s was also 8 out of 9.

Points Difference	No of matches	Cumulative	2009
1 – 5	2	2 with 5 points or less	2
6 – 10	2	5 with 10 points or less	3
11– 20	4	8 with 20 points or less	3
21– 30	1	9 with 30 points or less	1
31- 40	-	with 40 points or less	-
41 - 50	-	with 50 points or less	-

1.2 PENALTY GOALS

There were 53 penalty goals kicked in 2010 – in 2009 there were 69. The relationship of penalty goals to tries is shown below:

	Tries Scored		Penalties Goals Kicked		Ratio Tries : PGs	
	2010	2009	2010	2009	2010	2009
SOUTH AFRICA	13	10	20	29	1 to 1.5	1 to 2.9
AUSTRALIA	17	8	17	14	1 to 1	1 to 1.8
NEW ZEALAND	22	9	16	26	1 to 0.7	1 to 2.9

1.3 IMPACT OF THE PENALTY GOAL ON MATCH RESULTS

Tries continue to win matches. In Tri Nations, the winning team scored the most tries in 7 of the 9 matches or 78% of matches. In 2 matches, tries were equal. There was no game where one team scored fewer tries than their opponents and won the game.

In the last 96 Tri Nations matches, the losing team has scored more tries than the winning team on just 7 occasions.

2.0 TRY SCORING

The total number of tries scored and conceded by each country in Tri Nations 2010 was as follows:

	Tries Scored		Tries Conceded	
	2010	2009	2010	2009
NEW ZEALAND	22	9	9	6
AUSTRALIA	17	8	21	10
SOUTH AFRICA	13	10	22	11






2.1 RATE OF TRY SCORING

The table immediately above shows the number of tries scored by each country. However, the table does not show how effective each team was in scoring tries in relation to the possession that it obtained. A team may obtain little possession but still manage to score a significant number of tries. The following paragraphs consider this and attempt to show how successful each team was in converting possession into tries.






This was done by adding together the time each team was in possession of the ball in each of the matches played and then dividing it by the number of tries scored. The result then gave a rate of try scoring or a measure of how effective each country was in converting possession into tries. Because each team scored more tries than last year, possession required to score a try decreased proportionately.

		2010 TRI NATIONS	2009 TRI NATIONS
	NEW ZEALAND	1 try scored every 5.9mins	1 try scored every 12.3 mins
	AUSTRALIA	1 try scored every 6.5mins	1 try scored every 12.7 mins
	SOUTH AFRICA	1 try scored every 7.9mins	1 try scored every 9.3 mins

2.2 RATE OF TRY CONCEDED

Following the above exercise, the converse was examined, i.e. how effective was each team in restricting tries in relation to the possession that their opponents obtained. The following paragraph tries to measure this by illustrating how successful each team was in preventing their opposition from converting possession into tries. This was done by adding together the total time the team's opponents were in possession of the ball - and then dividing it by the number of tries conceded. The result then gave a rate of try scoring by the opposition.

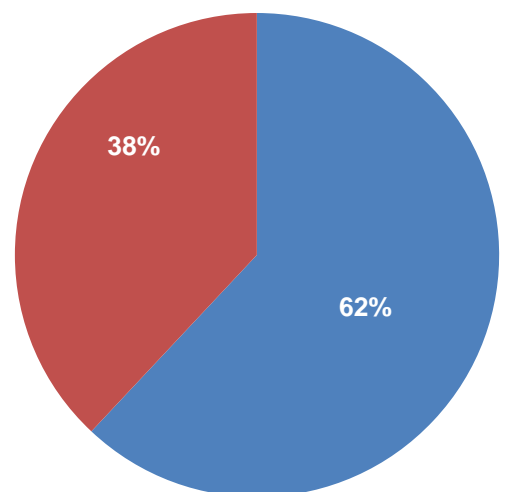
		2010 TRI NATIONS	2009 TRI NATIONS
	NEW ZEALAND	1 try conceded every 12.2mins	1 try conceded every 16.0mins.
	SOUTH AFRICA	1 try conceded every 5.2mins	1 try conceded every 9.7mins
	AUSTRALIA	1 try conceded every 4.9mins	1 try conceded every 10.2mins

■ Backs ■ Forwards

2.3 PLAYERS AND TRIES

It has been noted above that there were 52 tries scored in the 9 matches:

32 or 62% of tries were scored by Backs (2009 - 23 or 85%)
 20 or 38% of tries were scored by Forwards (2009 - 4 or 15%)



The breakdown between the 3 competing teams is shown in the attached table:

In the last 5 years leading up to this year's tournament, **South Africa's** forwards scored just 5 of their 46 tries. This year, **South Africa's** forwards scored 8, a far higher proportion than the other 2 teams.



NEW ZEALAND
AUSTRALIA
SOUTH AFRICA
TOTAL

2010 TRI NATIONS		2009 TRI NATIONS	
Tries by Backs	Tries by Forwards	Tries by Backs	Tries by Forwards
14	8	6	3
13	4	8	0
5	8	9	1
32	20	23	4

3.0 TRIES

3.1 SOURCE OF TRIES

The teams scoring the tries obtained possession of the ball prior to the scoring of the try from a variety of sources. Analyses of matches played at International level, over several years, have shown that the most fruitful source of possession has consistently and clearly been the lineout. This was not the case in 2009 when scrums were the major source. This year, however, saw a return to the lineout. It also showed that 3 tries were scored from contesting own restarts which was only 3 less than those scored from scrums. This was a big change. In the 2 previous years scrum possession had resulted in 17 tries while restarts produced none.

	2010 TRI NATIONS	2009 TRI NATIONS	2008 TRI NATIONS
Lineout – Own	16 or 31%	4 or 15%	13 or 31%
Opponents Kick	9 or 17%	1 or 4%	7 or 16%
Turnover/Handling Error	6 or 12%	5 or 19%	4 or 9%
Scrum – Own	6 or 12%	8 or 29%	9 or 21%
Penalty/Free Kick	7 or 11%	4 or 15%	8 or 19%
Lineout – Opp	2 or 4%	2 or 7%	-
Restart – Own	3 or 6%	-	-
Restart – Opp	2 or 4%	2 or 7%	1 or 2%
Scrum – Opp	1 or 2%	1 or 4%	1 or 2%
	52	27	43

The following table gives the source of **tries scored** by the 3 teams. It shows that **New Zealand** scored 8 tries from opponents kicks. **Australia** and **South Africa** between them scored just one.

	Lineout	Scrum	Pen/Fk	Kick	Turnover	Restart	Total Scored
NEW ZEALAND	4	3	2	8	3	2	22
AUSTRALIA	7	2	3	1	2	2	17
SOUTH AFRICA	7	2	0	0	1	3	12

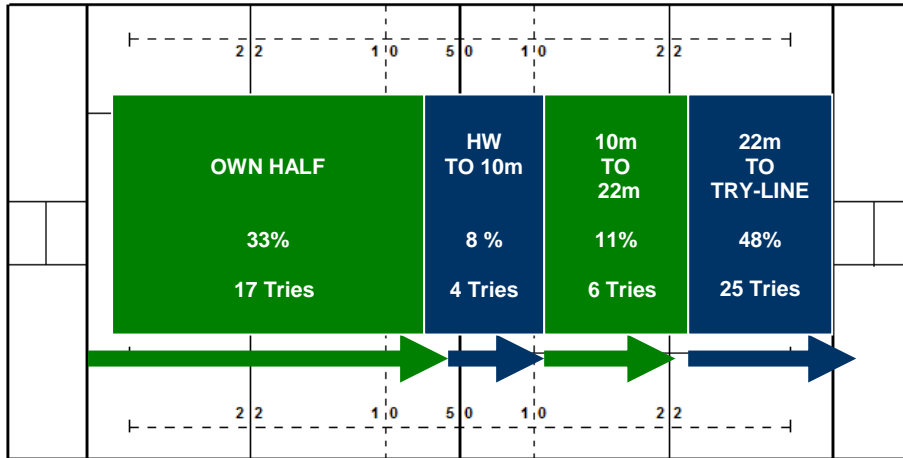
The next table shows the source of **tries conceded** by the 3 teams:

	Lineout	Scrum	Pen/Fk	Kick	Turnover	Restart	Total Conceded
NEW ZEALAND	3	2	1	1	2		9
AUSTRALIA	8	5	1	2	3	2	21
SOUTH AFRICA	7	0	5	6	1	3	22

This table shows that **South Africa's** opponents scored 6 tries from **South African** kicks. **New Zealand** and **Australia** conceded just 3 in total from this source.

3.2 ORIGIN OF TRIES

Tries originate from various parts of the pitch. This is illustrated below:



In 2010, 1 in 3 tries came from possession obtained from within the scoring team's own half. In 2009, it was 1 in 9 tries while in 2008, it was 1 in 5.

This year, therefore, many more tries started from within the scoring team's own half. The table shows that **New Zealand** scored half their tries from possession gained from inside their own half. This is an exceptionally high percentage and contrasts with **South Africa** who scored just 1.

	Own Half	Halfway to 10m	10m to 22m	22m to Try-line	Total Scored
NEW ZEALAND	11	1	5	6	22
AUSTRALIA	5	1	2	9	17
SOUTH AFRICA	1	2		10	13

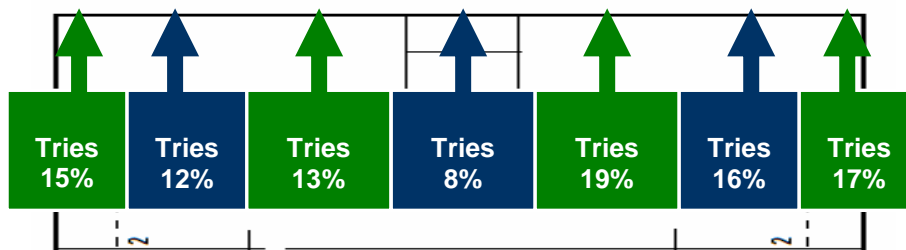
The following table provides the converse to the above, i.e. for each team it shows the origin of all tries conceded. Again it emphasises the contrast between **New Zealand** and **South Africa**. **New Zealand's** opponents scored only one try from inside their own half. **South Africa's** opponents scored 12.

	Opp Half	Halfway to 10m	10m to 22m	22m to Tryline	Total Conceded
NEW ZEALAND	1	1		7	9
AUSTRALIA	4	2	3	12	21
SOUTH AFRICA	12	1	3	6	22

3.3 TRY LOCATIONS

The chart below indicates where across the goal-line tries were scored. It shows that:

- 8% were scored under the posts 2009 – 11%
- 40% on the left side of the posts 2009 – 52%
- 52% on the right side of the posts 2009 – 37%



3.4 BUILD-UP TO TRIES

Possession of the ball that leads to tries is obtained from a number of sources – and they are listed above. More often than not, other actions – second phase, kicks and passes – then take place before the try is scored. The first table below shows the number of rucks and mauls (2nd phase) that preceded each of the 52 tries scored in Tri Nations 2010.

The table shows that 69% of tries were preceded by 3 or fewer second phases (2009 – 85%; 2008 – 75%):

	Number	%	Cumulative %	2009
0 R/Ms	15	29%	29%	49%
1 R/Ms	6	12%	41%	71%
2 R/Ms	9	17%	58%	78%
3 R/Ms	6	11%	69%	85%
4 R/Ms	5	10%	79%	
5 R/Ms	1	2%	81%	
6 R/Ms	1	2%	83%	
7 R/Ms	3	6%	89%	89%
8 R/Ms	1	2%	91%	
9 R/Ms	2	4%	95%	96%
10+ R/Ms	3	5%	100%	100%
Total	52	100%		

The next table below shows the number of passes that preceded each of the 52 tries scored in Tri Nations 2010.

The table shows that 49% of tries were preceded by 3 or fewer passes (2009 – 67%).

There was also a difference between the teams. Ten of **New Zealand's** tries contained 8 or more passes whereas in **South Africa's** and **Australia's** case the corresponding figure was 4.

	Number	%	Cumulative %	2009
0 pass	6	11%	11%	19%
1 pass	5	10%	21%	41%
2 passes	7	13%	34%	48%
3 passes	8	15%	49%	67%
4 passes	5	10%	59%	74%
5 passes	1	2%	61%	85%
6 passes	1	2%	63%	
7 passes	1	2%	65%	89%
8 passes	2	4%	69%	
9 passes	5	9%	78%	93%
9+passes	11	22%	100%	100%
Total	52	100%		

3.5 TIMING OF SCORES - TRIES

56% of tries were scored in the first half, 44% in the second half. Last year the figures were in reverse; 44% of tries were scored in the first half, 56% in the second.

The following table breaks down these figures further and shows the halves in which teams scored tries and the halves which they conceded tries:

	Tries scored		Tries conceded	
	1st half	2nd half	1st half	2nd half
NEW ZEALAND	11	11	5	4
AUSTRALIA	12	5	10	11
SOUTH AFRICA	6	7	14	8

3.6 TIMING OF SCORES - PENALTY GOALS

There was little difference between the time when tries were scored and the time when penalties were kicked.

In Tri Nations 2010, 56% of tries and 58% of penalty goals were scored in the first half while 44% and 42% were scored in the second.

The following chart shows the number of penalties kicked and conceded by each team in each half:

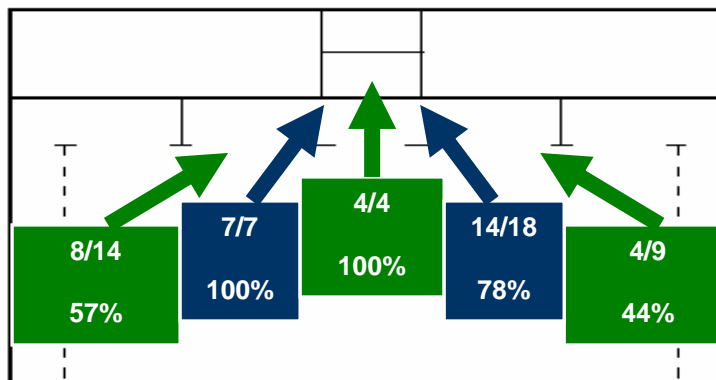
	Pen Goals scored		Pen Goals conceded	
	1st half	2nd half	1st half	2nd half
SOUTH AFRICA	8	12	11	7
AUSTRALIA	12	5	9	8
NEW ZEALAND	11	5	11	7

4.0 KICKS AT GOAL

Kicking success rates were as follows:

	2010 TRI NATIONS	2009 TRI NATIONS
Conversions	71%	78%
Penalty goals	82%	80%
Drop goals	0 of 4 = 0%	6 of 19 = 32%

Map of Conversion Success



The success rate for penalty goals, conversions and drop kicks for each of the participating countries was as follows:

Kicks at Goal Success

	Penalty Success	Conversion Success	Overall Success %	Drop goal Success
SOUTH AFRICA	20 of 20	11 of 13	94%	0 of 4
AUSTRALIA	17 of 23	13 of 17	75%	0 of 0
NEW ZEALAND	16 of 22	13 of 22	66%	0 of 0

The table shows that **New Zealand** was the least successful with kicks at goal while **South Africa** was the most successful, which was a complete reversal from their final position in the table. The table also shows that **South Africa** was the only team to attempt a drop goal but, in contrast to its 100% success rate on penalty goals, its 4 drop goal attempts all failed.

5.0 BALL IN PLAY & POSSESSION

In percentage terms, the Tri Nations 2010 matches produced an average ball in play time of **36 min 16 secs** – or **45%** (2009 - 42% or 33 mins 51 secs).

The highest ball in play figure was **49%** or **39 mins 27 secs**. The lowest was **38%**.

The winning team obtained most possession in 4 of the 9 matches. The following table shows the ball in play times and possession per team per match:

MATCH	BALL IN PLAY		POSSESSION		
	TIME	%	NZ	SA	AUS
New Zealand 32 v South Africa 12	39m 27s	49%	22m 30s 57%	16m 57s 43%	
New Zealand 20 v Australia 10	39m 17s	49%	16m 20s 42%		22m 57s 58%
New Zealand 31 v South Africa 17	38m 22s	48%	18m 39s 49%	19m 43s 51%	
Australia 30 v South Africa 13	38m 20s	48%		18m 11s 47%	20m 09s 53%
Australia 22 v New Zealand 23	36m 39s	46%	17m 03s 47%		19m 36s 53%
South Africa 22 v New Zealand 29	35m 24s	44%	20m 59s 59%	14m 25s 41%	
South Africa 39 v Australia 41	34m 23s	43%		19m 59s 58%	14m 24s 42%
Australia 28 v New Zealand 49	34m 18s	43%	15m 23s 45%		18m 55s 55%
South Africa 44 v Australia 31	30m 29s	38%		14m 01s 46%	16m 28s 54%

6.0 ACTIVITY CYCLES

Activity cycles comprise - ruck/mauls, passes, and kicks.

	2010 TRI NATIONS	2009 TRI NATIONS
Rucks/Mauls	186	131
Passes	300	222
Kicks	37	60

The following paragraphs show the number of rucks/mauls, passes and kicks made in Tri Nations 2010 compared with Tri Nations 2009.

6.1 PASSING

Games, on average, contained **300** passes (2009 - 222). The most in any game was 341 (*New Zealand v Australia*) – the fewest was 263 (*South Africa v Australia*). The most by any team in a game was 203 (New Zealand) – the fewest, 83 (South Africa). The attached table shows the average passes per game per team:






AUSTRALIA
NEW ZEALAND
SOUTH AFRICA




	2010 TRI NATIONS	2009 TRI NATIONS
AUSTRALIA	164	125
NEW ZEALAND	163	125
SOUTH AFRICA	123	83

The above table shows that **Australia** and **New Zealand** made 33% more passes than **South Africa**. This was not accounted for simply because they had more possession. It was also because **Australia** and **New Zealand** passed at a higher rate and this next table shows this ie the average number of passes per minute's possession:

Rate of Passing per Team – ie passes per minutes possession

	2010 TRI NATIONS	2009 TRI NATIONS
 AUSTRALIA	9.0	7.4
 NEW ZEALAND	8.6	6.8
 SOUTH AFRICA	7.1	5.4

The number of passes made by a team can also vary considerably from match to match. The following table shows the average number of passes per country per game as shown above together with the most in a game and the least in a game:

	Average 2010	Average 2009	Most 2010	Most 2009	Least 2010	Least 2009
 AUSTRALIA	164	125	192	181	142	91
 NEW ZEALAND	163	125	203	153	133	80
 SOUTH AFRICA	123	83	159	102	83	43

6.2 PLAYER PASSING




The total passes made in the championship were broken down into 3:

- Passes made by forwards
- Passes made by the scrum half
- Passes made by backs

When the 2000+ passes made in Tri Nations 2010 were allocated into these 3 groups, the results were as follows:

	2010 TRI NATIONS	2009 TRI NATIONS
% of Passes by forwards	19%	21%
% of Passes by scrum half	47%	41%
% of Passes by backs	34%	38%
	100%	100%




What the above table shows is the level of passing made by the three groups of players. It shows how active each group of players was in passing the ball. The following table takes this further. It shows the total and proportion of a team's passes made by each group. Where certain teams can use forwards more as suppliers of the ball for onward transmission by the backs, other teams involve the forwards themselves in the distribution process. This is what the table shows:

	Passes by Forwards	Passes by Scrum half	Passes by Backs
 NEW ZEALAND	182 or 19%	434 or 44%	362 or 37%
 AUSTRALIA	166 or 17%	454 or 46%	365 or 37%
 SOUTH AFRICA	155 or 21%	387 or 53%	195 or 26%

The next tables show what each rank of forwards of each team did with the ball when they were in possession of it. The first table shows the number of times each countries' forwards had the ball in their hands and then notes the number of times they passed it. This is then expressed as a ratio so that if a team's forwards passed the ball 20 times having received it 100 times, the ratio would be expressed as 1 to 5, i.e. 1 pass for every 5 possessions. The following table shows that **New Zealand's** forwards were the most likely to pass the ball, although by a very small margin, over the other teams:






Ratio of Passes to Possession – by Forwards per Team




		2010 TRI NATIONS	2009 TRI NATIONS
	NEW ZEALAND	1 to 3.0	1 to 2.8
	AUSTRALIA	1 to 3.1	1 to 2.5
	SOUTH AFRICA	1 to 3.2	1 to 3.0

This similarity between the forwards of each country is also shown when the forwards are broken down into the 3 groups of (a) front row, (b) second row and (c) back row. This time the relationship between passes and possession is expressed in percentage terms, so that if a group of forwards received the ball 20 times and passed it 6 times, it means they passed it on 30% of occasions.




% of times ball passed by Front Row

		2010 TRI NATIONS	2009 TRI NATIONS
	AUSTRALIA	32%	32%
	SOUTH AFRICA	32%	30%
	NEW ZEALAND	31%	35%

% of times ball passed by Second Row

		2010 TRI NATIONS	2009 TRI NATIONS
	NEW ZEALAND	34%	31%
	SOUTH AFRICA	27%	45%
	AUSTRALIA	19%	27%

% of times ball passed by Back Row

		2010 TRI NATIONS	2009 TRI NATIONS
	AUSTRALIA	35%	49%
	NEW ZEALAND	34%	38%
	SOUTH AFRICA	33%	32%

What was interesting this year, just as last year and the previous year, was the fact that each rank of **New Zealand** forwards passed the ball at similar rates, around 34% of every time they had the ball in their hands. There was a slightly wider variation within the other two teams.

6.3 PASSING MOVEMENTS

Passes are grouped into passing movements – i.e. one pass movement, two pass movements and so on. The data shows that 82% of all passing movements contained two passes or less. This now appears to be a constant and varies little from year to year. It also varies little between teams. All 3 countries fell within 81% and 86%.

6.4 RUCKS/MAULS (2ND PHASE)

The average number per game was **186** (2009 – 131).
 The most in any game was **210** – the fewest was **108** (2009 – 163 and 108).
 The most by any team in a game was **131**, the least **54** (2009 – 108 and 47).

The average for all countries is shown below. The table indicates the total number of rucks/mauls created by each of the 3 teams expressed as an average per game.



NEW ZEALAND
AUSTRALIA
SOUTH AFRICA

	2010 TRI NATIONS	2009 TRI NATIONS
NEW ZEALAND	98	77
AUSTRALIA	94	66
SOUTH AFRICA	87	53

However, the number of rucks and mauls made by one team may be constrained because it obtained only limited possession of the ball. In order to address this, an alternative calculation has been made which relates the number of rucks/mauls to the share of ball in play time won by each team. This is expressed in the number of rucks created for every minutes' possession obtained by a team and shows that the 3 teams rucked at the same rate:

Rate of Rucks/Mauls per Team



NEW ZEALAND
AUSTRALIA
SOUTH AFRICA

	2010 TRI NATIONS	2009 TRI NATIONS
NEW ZEALAND	5.2	4.2
AUSTRALIA	5.1	3.9
SOUTH AFRICA	5.1	3.4

6.5 BREAKDOWN RETENTION

At the breakdown the team taking in the ball retained possession by either winning the ball or being awarded a penalty on 94% of occasions (2009 – 91%).

The percentage success rate for each team was very similar and was as follows:



NEW ZEALAND
AUSTRALIA
SOUTH AFRICA

	2010 TRI NATIONS	2009 TRI NATIONS
NEW ZEALAND	94%	93%
AUSTRALIA	94%	90%
SOUTH AFRICA	93%	89%

6.6 KICKING

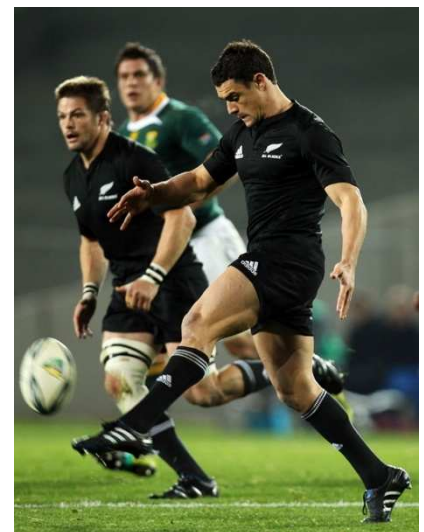
The average number per game was **37** (2009 – 60).
 The most open play kicks in a game was **47** - the fewest **18** (2008 - 75 and 47).
 The most by a team was **27**– the least **7** (2008 – 44 and 22).

The average number of kicks per team per game is shown in the table below:






NEW ZEALAND
SOUTH AFRICA
AUSTRALIA

	2010 TRI NATIONS	2009 TRI NATIONS
NEW ZEALAND	20	28
SOUTH AFRICA	21	22
AUSTRALIA	15	28



When an adjustment is made to take account of the possession obtained by each team, then the kicking table changes, but only slightly:




Rate of Kicking per Team – ie kicks per minutes possession

		2010 TRI NATIONS	2009 TRI NATIONS
	SOUTH AFRICA	1.2	2.2
	NEW ZEALAND	1.0	1.5
	AUSTRALIA	0.8	1.6

6.7 SUMMARY

A summary of previous tables is shown below. It shows the average number of rucks, passes, and kicks per game and the rate for each per minute possession:

Activity Cycle Summary - Average per game and Rate per minute possession




		Rucks/Mauls		Passes		Kicks	
		Average	Rate	Average	Rate	Average	Rate
	NEW ZEALAND	98	5.2	163	8.6	20	1.0
	SOUTH AFRICA	87	5.1	164	9.0	21	1.2
	AUSTRALIA	94	5.1	123	7.1	15	0.8

7.0 KICK OFFS & RESTARTS

Of 50m restarts, 50% were kicked long – 50% were kicked short and were contestable (2009 – 40% and 60%).

When 50m restarts were kicked short, the kicking team regained possession on 1 in 3 occasions (2009 – 1 in 5).

Success rate and restart type varied between the 3 teams. The effectiveness of teams in retaining short restarts is shown below:

		50m Restarts		22m Restarts		Retention rate
		Short	Long	Short	Long	Short
	NEW ZEALAND	22	10	8	1	11 of 30
	AUSTRALIA	18	23	0	2	3 of 18
	SOUTH AFRICA	17	25	1	6	7 of 18

It can be seen that there was a clear contrast between **New Zealand** and the other 2 teams. While 73% of **New Zealand's** restarts were kicked short, the equivalent percentages for **Australia** and **South Africa** were 42% and 37% respectively.

8.0 LINEOUTS

The average number of lineouts per game was **22** (2009 – 24).

The most line outs in a game was **30**, the least **16** (2009 – 34 and 15).

Average no per game
Percentage competed
Possession retained

2010 TRI NATIONS	
Average no per game	22
Percentage competed	49%
Possession retained	84%

Lineout trends over the last 4 years are shown in the following table:

	2010 TRI NATIONS	2009 TRI NATIONS	2008 TRI NATIONS	2007 TRI NATIONS
Av no per game	22	24	24	30
% competed	49%	56%	71%	63%
Possession retained	84%	79%	80%	81%



AUSTRALIA
SOUTH AFRICA
NEW ZEALAND

Success %		Lineout Steals		Not straight / Pen/FK / Knock-on	
Own Throw	On Opp Throw	Lost on Own Throw	Won on Opp Throw	Own Throw	Opp Throw
88%	16%	7	7	1	5
86%	15%	6	9	3	1
79%	17%	9	6	5	3

In 2009, **South Africa** had a hugely successful lineout. While it almost maintained its success rate on its own throw-in in 2010, its success on their opponents throw in was far less.

- ◆ In 2009, they had a success rate of 38% on their opponent's throw-in. This year it was 15% which was slightly lower than that of **Australia** and **New Zealand**
- ◆ In 2009, their lineout was stolen only 6 times compared with **Australia's** 16 and **New Zealand's** 14. While it was stolen only 6 times in 2010, **Australia's** and **New Zealand's** were stolen on only 7 and 9 occasions
- ◆ In 2009, they stole their opponents lineout 24 times. This year they managed only 9
- ◆ This perceived superiority was recognised by the other two teams who only challenged the **South Africa** lineout on 41% of occasions while **Australia's** was challenged on 60% of occasions and **New Zealand's** on 45%.
- ◆ Conversely, **South Africa** still challenged their opponent's lineout more often than the other teams, 60% of occasions compared with **Australia's** and **New Zealand's** 37% and 52% respectively



9.0 SCRUMS

The average number of scrums per game was **14** (2009 – 19).

The most scrums in a game was **19**, the least **10** (2009 – 26 and 15). There were 2 matches where one team had only 3 put-ins in the entire game.

Average no per game
Possession retained

2010 TRI NATIONS	
Average no per game	14
Possession retained	93%

The following compares scrums in 2010, 2009, 2008, and 2007

	2010 TRI NATIONS	2009 TRI NATIONS	2008 TRI NATIONS	2007 TRI NATIONS
Av no per game	14	19	18	16
Rate of Scrum Pens and F/Ks	1 every 6 scrums	1 every 4 scrums	1 every 8 scrums	1 every 6 scrums
Possession retained	93%	88%	95%	91%

The Scrum success on own feed and opposition feed are shown below. Again, ball retention was high for all teams. With such high percentage of possession retained, it is no surprise that heels against the head were few and far between. In total there were just 2 in 128 scrums.

The following table shows the scrum success per country with **New Zealand** having a 100% success rate on their own scrums, with Australia having a nil success on their opponents ball:



NEW ZEALAND
SOUTH AFRICA
AUSTRALIA

Scrum Success %		Heels against the head	
Own Feed	Opp Feed	Won	Lost
100%	12%	1	0
98%	12%	1	0
79%	0%	0	2

10.0 PENALTIES & FREE KICKS

In Tri Nations 2010, the average number of penalties and free kicks awarded in a game was **20**. This compares with 23 in 2009, 28 in 2008 and 19 in 2007.

The most awarded in a single game was **30**, the least, **17** (2008 – 27 and 20).

The following table comprises the total penalties awarded to and conceded by each team. **New Zealand** conceded the most. However, because the number of penalties can vary from match to match, a better measure is the **proportion** of penalties conceded by a team in all their matches compared with their opponents. This shows that **New Zealand** was also the highest penalised team in relation to their opponents.

Average Penalties For and Against per Team per Game

	Pen/FK For	Pen/FK Against
NEW ZEALAND	56	70
AUSTRALIA	67	59
SOUTH AFRICA	59	53

Proportion of Penalties For and Against per Team

% Pen/FK For	% Pen/FK Against
44%	56%
53%	47%
53%	47%

10.1 CATEGORIES OF OFFENCES PENALISED




The following table groups the penalties awarded into 9 categories. The table also shows the comparative figures since 2006:

Penalty/Free Kick Reason

	2010 TRI NATIONS	2009 TRI NATIONS	2008 TRI NATIONS	2007 TRI NATIONS
Ruck/tackle on ground	59%	51%	52%	39%
Offside	11%	13%	17%	25%
Scrum	13%	19%	8%	14%
Lineout	4%	2%	2%	3%
Foul play	1%	-	2%	4%
obstruction	3%	4%	5%	2%
Dangerous tackle	6%	5%	7%	7%
Unplayable f/k	-	-	4%	
Other	3%	4%	3%	8%
	100%	100%	100%	100%

10.2 PENALTY OPTIONS

Of all penalties and free kicks awarded, the following were the options taken by the 3 teams:

	Kick to Touch	Kick for Goal	Tap	Scrum
 Australia	39%	37%	21%	3%
 New Zealand	39%	41%	18%	2%
 South Africa	48%	34%	14%	4%
Overall	42%	37%	18%	3%



There were **65** penalty goal attempts this year, compared to **86** in 2009.

The above shows a similar penalty option profile compared to last year. **Australia** were the most likely to use a tap kick.

11.0 CARDS

The following paragraphs examine the circumstances and effects of the issue of red and yellow cards during Tri Nations 2010.

11.1 RED CARDS

There was **one** red card issued during Tri Nations 2010 (2009 – none). It was the result of a second yellow card.

11.2 YELLOW CARDS




There were 9 yellow cards issued during the championship (2009 – 8).

In 2010, 4 of the 9 matches contained a yellow card.

The table below shows the reasons for each yellow card:

	2010 TRI NATIONS
Dangerous Tackle	5
Ruck/Tackle Preventing release	2
Foul play	1
Preventing Throw in	1

The following table shows the breakdown of yellow and red cards per team with comparatives for previous years. It shows that **South Africa** have conceded 13 cards in 5 years while *New Zealand* have conceded 5 and **Australia** 10 in the same period:

	2010 TRI NATIONS	2009 TRI NATIONS	2008 TRI NATIONS	2007 TRI NATIONS	2006 TRI NATIONS
 SOUTH AFRICA	4	2	1	5	1
 NEW ZEALAND	1	2	1	1	-
 AUSTRALIA	4	4	-	-	2
TOTAL	9	8	2	6	3

12.0 TELEVISION MATCH OFFICIAL (TMO)

In Tri Nations 2010 there were **9** references to the TMO (2009 – 5).

As a result of the 9 references, 7 tries were awarded.

The shortest reference took **38 seconds**, the longest **2 mins 20 secs** and 4 out of the 9 references took less than a minute.

