



Australian Rugby
Level III Referee
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Topic: Major Assignment –
Television Match Official Decision
Analysis for
Super 12 Rugby Union
2002 Season

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1.0 Introduction

The purpose of this major project is to compile and analyse the decisions made by the Television Match Officials (TMO) during the 2002 Super 12 Rugby Union competition.

The project forms part of the requirements of the Australian Rugby Union Level 3 Referees Accreditation 2002.

In completing this project it is envisaged that a better understanding of the role of the TMO is gained in terms of game results together with an improved appreciation of the frequency of TMO involvement in decision advice.

I would like to thank the following persons for their assistance in completing this project: –

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Mr Greg West, Level III Referee Coach Mentor.

Mr Ben McGahan, ARU Video Analyst, for supplying tapes of all S12 games.

My wife Nicole and family for their support and understanding during the 12 month Level III course.

2.0 Methodology

To acquire the necessary data to undertake an analysis of the involvement and performance of the Television match Official (TMO) in the 2002 Super 12 competition it was necessary to review each of the 69 Super 12 games played during the season.

Commencing from Round 1 in February 2002 and finishing in May 2002 with Round 12 and the subsequent Semi-Finals and Final a video of each game was reviewed and statistics recorded on the following basis: –

1. Number of tries scored.
2. Number of tries awarded by the TMO together with an assessment of the decision being correct or incorrect.
3. Number of tries not awarded by the TMO together with an assessment of the decision being correct or incorrect.
4. Number of tries awarded by the referee that should have been refereed to the TMO for advice with an assessment of the decision being correct or incorrect.
5. Number of tries not awarded by the referee that should have been refereed to the TMO for advice with an assessment of the decision being correct or incorrect.
6. Number of TMO decisions involving collapsed ruck or maul over try line that could not be determined.

In addition to the statistics recorded for the 69 games a record of decisions that were considered to be well executed by the TMO was collected together with TMO decisions that were either poorly advised or not in accordance with the IRB protocol for the role of the TMO (Refer Annexure A)

Having reviewed each fixture and recording the above statistics the following results will be revealed: –

1. Total number of tries during the season.
2. Average number of TMO tries awarded per game.
3. Total number of TMO decisions during the season.
4. Percentage of all TMO decisions correct.
5. Average number of TMO decisions per game.
6. Percentage of TMO try decisions correct.
7. Percentage of TMO no try decisions correct.
8. Percentage of tries awarded that should have been reviewed by TMO that were correct.
9. Percentage of no tries that should have been reviewed by TMO that were correct.
10. Percentage of TMO decisions involving pile up over try line.
11. Percentage of games that no TMO decisions were made.

3.0 BACKGROUND

The introduction of the appointment of Television Match Officials (TMO), otherwise known as the *Video Referee*, to games of rugby first evolved in 1999.

Australian Rugby lead the world in the use of the TMO and was the first country to officially appoint such officials to assist the on field referee.

The use of the TMO has been significantly influenced by the profile of Rugby League in Australia and their use of the Video Referee for many years.

The Video Referee first came to prominence during the *Super League* competition during the mid to late 1990's.

This innovation relied heavily on specialised communications equipment developed by Murray Tregonning & Assoc. that enabled the on field officials to communicate amongst themselves and an official in the grandstand.

Effectively, the equipment relies on a harness containing a two way radio transmitter being worn by the referee and touch judges to allow communication. The Video Referee or TMO is also able to communicate to all officials using this equipment.

The other essential piece of equipment necessary to allow the TMO to function is the coverage of the game in question by television.

In addition to communication with the on field official the referee must be in contact with the director of the television coverage who is typically located in the Outside Broadcast (OB) van.

The TMO relies heavily on the director to provide rapid replays of the try scoring situation as requested by the referee to allow

the assessment of the try or other event to be assessed as quickly as possible.

During the 1999 trial of the TMO by Australian Rugby it became obvious that the TMO was successful and that the rugby public had come to expect and accept the involvement of the TMO in games of rugby.

At this time the International Rugby Board (IRB) had not amended the Laws of the Game to allow the use of the TMO at International level.

In 2000 the SANZAR Board resolved to employ the TMO during the Super 12 competition. Based on the success of the TMO during S12 2000 the IRB introduced experimental laws to allow TMO's to be used in 2000 and the first of these Internationals using the TMO occurred in Australia, New Zealand and South Africa.

Following on from this IRB adopted the use of the TMO in games with appropriate levels of *technological devices* by allowing the referee to consult with others in relation to the scoring of tries or touch downs in relation to grounding and or in touch. This was established by the amendment of Law 6 in the 2001 edition of the *Laws of the Game*.

As means of confirming the brief to TMO's during their decision making process and to assist the on field referee in determining the range of situations the TMO may be requested to assist the referee the IRB has prepared a TMO Protocol that is the basis for all TMO decisions. Refer Annexure A for copy of protocol.

4.0 DECISION CRITERIA

The basis for assessing each of the actual or potential TMO decisions that occurred in the 69 Super 12 games in 2002, that resulted in the statistical analysis compiled in Annexure B of this report, is my experience in the role as a TMO in International, Super 12 & Domestic Rugby games from 1999 to 2002.

TMO Experience: –

1999 Ricoh Cup –	NSW v QLD –	Sydney Football Stadium
2000 Super 12 –	All NSW Home Games (5) –	Sydney Football Stadium
2000 Mandela Cup –	Australia v South Africa	Colonial Stadium Melbourne
2000 Tri-Nations –	Australia v New Zealand	Stadium Australia Homebush
2002 Tooheys New Cup	Semi Finals (2) and Grand Final	Sydney Football Stadium

I based the analysis compiled in this report on the decision I would have made had I been presented with the video replays as shown on the TV coverage on each of the tapes reviewed.

The information presented in this report is my opinion only and is not necessarily the opinion of the Australian Rugby Union.

5.0 ANALYSIS

Following the video review of the 69 Super 12 games of 2002 the following statistics were revealed in relation to the use of the TMO: –

1. Total number of tries scored = 440 tries
2. Average number of tries scored per game = 6.38 tries
3. Average number of TMO tries awarded per game = 0.46 tries
4. Total number of TMO decisions made during season = 69 decisions
5. % of all TMO decisions that were correct = 91%
6. Average number of TMO decisions made per game = 1.0 decisions
7. % of TMO try decisions that were correct = 84%
8. % of TMO no try decisions that were correct = 97%
9. % of tries awarded by referee that should have been reviewed by TMO, correct = 100%
10. % of tries not awarded by referee that should have been reviewed by TMO, correct = 80%
11. % of TMO decisions involving pile up over line = 7%
12. % of games where no TMO decisions were made = 38%

Statistics compiled in relation to the correctness or otherwise of referee or TMO decisions within this report are my personal opinion only and not the endorsed opinion of the Australian Rugby Union.

6.0 OBSERVATIONS

The analysis of the 69 Super 12 games in 2002 provides some interesting statistics which are apparently inconsistent with the perceptions of the regularity of the involvement of the TMO in the try decision making process.

The statistics indicate that there is only an average of one (1) TMO decision per game during 2002. The general opinion is that there would be, on perception, at least 2 or 3 decisions per game.

This perception is probably based on the fact that in games that the TMO is involved the average number of TMO decisions is nearly two (2).

This is offset by the fact that in 38% or 24 of the S12 games in 2002 the referee did not require the assistance of the TMO.

When requested by the referee the TMO recommended the awarding of 32 TMO tries during the season. On this basis TMO tries represented 7% of the 440 tries scored by all teams during S12 2002.

It is also worth considering that of the 69 TMO decisions made during 2002 37 of the decisions recommended that a try is not awarded which reflects 54% of the TMO decisions.

It can be assumed that without the advice of the TMO in the no try TMO situations the on field referee would have awarded a try based on advice from the touch judge, experience and “gut feel”.

In terms of the players, coaches and supporters the use of the TMO is substantiated if tries are correctly awarded.

A pleasing aspect of the referee and TMO performance in S12 2002 is the regularity of a correct decision being made.

Of all TMO decisions 91% were correct, with 84% of TMO try decisions and 97% of no try decisions correct.

It is also worthy of note that in close try decisions that could have been referred to the TMO it is in my opinion that 100% of these tries were correctly awarded. This statistic helps to demonstrate the high skill and competence level of the referees during the season.

Further observations of the 69 TMO decisions during the season indicate that the majority of the referees and TMO's employ the TMO protocol as per IRB directives.

Probably the best exponent of the referees in terms of operating within the protocol and clear and concise instructions to the TMO is Tappe Henning of South Africa. Tappe always makes the nature of his inquiry very clear to the TMO and when receiving the TMO decision the decision is repeated to ensure there is no ambiguity in awarding or denying a try.

There was during the occasional game decisions or requests that were outside the protocol.

Such examples involved the referee inquiring about a knock on before the try line and or the TMO advising the referee to award a penalty try for apparent obstruction when at no times during the request for advise did the referee consider a penalty try.

Nonetheless, by far the majority of decisions were well made and considered by both the referee and the TMO.

Perhaps if there is any part of the TMO process that requires improvement is the time taken by the TMO to make a decision.

In some instances the TMO has appeared to take too long to make, what at times seems a easy decision.

A reason for some of the decisions taking too long may be a consequence of the level of experience of the TMO.

It is preferable in my opinion for the TMO to be regularly appointed to the task rather than from a panel of on field

referees whom are either more focused on the on field performance or may have never performed the task.

As in all activities the more practice that can be devoted to a task the more proficient the TMO can become and consequently shorten the decision time and improve the continuity of the game by avoiding undue delays.

7.0 CONCLUSIONS

Since its introduction in 1999 the TMO has certainly improved the accuracy of officiating in the Super 12 and International Rugby by providing an opportunity for the referee to check any try decisions that are doubtful or difficult.

This opportunity for the referee to refer these try decisions to the TMO has met with wide acceptance from the Rugby supporter and administration.

An additional benefit has been the reduction in controversial decisions being made by referees that may have had a material impact on the outcome of a game. The decision of the TMO is generally accepted by the spectator, supporter and press as being accurate and thus removes pressure from the on field official.

As far as the involvement of the TMO in S12 2002 there is now a definitive base established to allow the comparison of the performance of the TMO in future seasons.

The statistics also indicate that the on field referee has adopted well to the involvement of the TMO by only utilizing the TMO on average once per game with a 91% accuracy being achieved.

On this basis, it is considered that the Television Match Official has become an integral part of the on field referees decision making process and or options that allows an improved level of performance, less controversial results and improved spectator & media scrutiny.

The TMO should continue to be part of the officiating team at all important rugby games at provincial and international levels or where broadcast facilities and budget allows.

8.0 ANNEXURES

8.1 IRB TMO PROTOCOL 2002

8.2 TMO SUPER 12 – 2002 STATISTICAL ANALYSIS