



"Normally, a Grade AA shot does not equal a Grade A shot, does not equal a Grade B shot in relative scoring opportunity"

HOCKEY ANALYTICS – SHOTS AND GOALS MEASURES AND DATA COLLECTION/REPORTS FORMS

Why measure any of the following against all opposition and against teams over 500 winning %?

• Team Shots For And Against Averages By Team and Player – scoring goals obviously starts with shots so if the team and players average more total shots than the other team, we should win. Right? Not necessarily. There are many aspects of a shot that increases the likelihood of a goal ... speed of the shot, how close to the goalie was the shot taken, where on the net was the shot, the quick or slow release of the shot, was the goalie forced to move in the net before the shot was taken, was the shot screened or deflected? Generally speaking analytic studies have found the further away from the net a shot is taken the more likely it is not to score. Now, to dig deeper, how many shots just inside their blueline say result in goals off of deflections and rebounds and screens in your league. Find out and measure the results over time using the forms provided in this website in order to improve your team's performance.

Nevertheless measuring average total team and player shots is one high level indication of team and player success (see game form to collect shot location data below to get more detail)

Shot Attempts ("SAT" or "CORSI") By Team and Player – some analytics folks for years have touted Shot Attempts (SAT) or CORSI (shots on net + shots that missed the net + blocked shots) as an indicator of team or player success as the team/player had to be in the Offensive Zone with puck possession to execute any of these, so, if one team's SAT or CORSI is higher than the opposition's the higher SAT – CORSI team should win. My issue with this logic is greater puck possession in the offensive zone enabling a blocked or missed net shot, or an on the net shot does not necessarily lead to more actual scoring.or more quality shots on net, a greater % of which do score.

Therefore I think there are better measures of a team's likely success in scoring more goals than the other team other than just being there in the offensive shot capable of executing many poor quality shots

Example: Team A has 25 on net shots + 20 blocked shots + 15 missed net shots = 60 CORSI or SAT shots. Team B has 40 on net shots + 5 missed net shots + 10 blocked shots = 55 shots. Team A has a superior CORSI or SAT 60 - 55, but TEAM B likely has 15 more quality shots than Team A with 15 more on net shots. And frankly this may not be the case. We still have to drill down more to determine at least some of the criteria for a quality shot, one of which is shot location. See below





- **FENWICK By Team and Player** same with FENWICK (shots on net + shots that missed the net
- **Team and Player Grade "A" Shots For and Against Averages** What is a Grade "A" shot? Any shot from the light grey shaded area below. Generally, shots within that area are statistically better quality or dangerous shots than shots outside of that area, but not always.



• Team and Player Dangerous Grade "A" Shots For and Against Averages – even if a shot comes from the Grade A area it is not necessarily a "dangerous" shot: for example a weak backhander that is easily handled by the goalie. "Dangerous" is not easily defined and is subjective but suffice to say it's a shot you believe when you see it that it had a very good chance of going in, and in fact includes shots that did go in. Other dangerous shots would include breakaways, a properly executed 2 on 1, or 3 on 1 with a cross ice pass and quick release shot to an open net corner, a screened shot, cross ice one timers and so on. You define "dangerous" the way you want to, but if you are saying "got away with that one, or great save, or how did that not go in", mark that one up with an * as "dangerous".





• Team and Player Grade "AA" Shots For And Against Averages - What is a Grade "AA" shot? Any shot from the dark grey shaded area below:



- Team and Player Dangerous Grade "AA" Shots For And Against Averages same criteria for these shots as for Grade A shots except because the shooter is closer these shots tend to go in more on a % basis than Grade A shots.
- **Team and Player Grade "B" Shots For and Against Averages** What is a Grade "B" shot? Any shot from the white area below:







- Team and Player Dangerous Grade "B" Shots For and Against Averages same as above but mostly screened hard low or bar down shots or deflected shots that hit their player before going into the net
- Number of Shots Missed the Net By Player a shot that would go in the net but for a save is a "shot". A shot that misses the net, hits the post or cross bar or is played by the goalie but could not have gone in is still a missed net shot. Valuable to know so you can identify who needs work hitting the net and the number of significant missed opportunities. Maybe your play is fine but your execution of shots is off
- Number of Shots Blocked By Team/Player very important, often overlooked in value, and again like missed net shots, how many were blocked by them, who needs work shooting through the block, releasing quicker, stepping and shooting or passing to a teammate that does have an open shooting lane
- Number of Effective Screened Shots top of the crease screens force the goalie back into the blue ice more opening up space on either side and makes it hard for the goalie to see the shot very valuable tactic underestimated by many. How many screened shot goals did they score against us? Do we have to work on clearing net front more





effectively at the right time? Need to know how significant the issue is and who is having difficult removing the screen or creeating one for us

- Shooting % By Player By Grade AA, Grade A and Grade B and Total Shots number of goals divided by the number of shots per player for each category. Very instructive for developmental work in the knack of putting pucks in a small space to score... slow shot release, panic close in banging at the puck rather than cool top shelf, mostly Grade B shots not getting to The Grade A and AA scoring areas enough?
- **Rebound Shots/Goals For and Against Per Game** rebound shots go in much more frequently than regular shots, so determining how many rebounds are being generated is important in understanding scoring or lack thereof. And for our goalies let them count the rebounds of the other goalie when they are on the bench as this will help coaches understand what goalie coaching needs to take place to better control rebounds (see form below).

Here are the Data Collection Forms I use with respect to the above:

1. SHOTS AND FACEOFF GAME FORM

SEE BELOW











PERIOD #			GRADE A		GRADE B		PP		AA		
F	Α	MISS F	BLK F	F	А	F	A	F	Α	F	А

COMPLETION INSTRUCTIONS

- Complete one form per period:
 - Insert player # in shot location and circle goals
 - Put B after Blocked shot in that location
 - Put PP after PP shot in that location
 - Put X after missed net shot in that location
 - Put a * after a dangerous shot in that location
 - Include all applicable labels to each Shot e.g. If a PP "dangerous" shot blocked, put Player Number PP B *
 - Insert player numbers for the faceoff record and a ✓ after a win or loss a faceoff win is when we get the puck immediately on the draw or after an immediate battle around the faceoff circle involving other players
- Complete the Summary Table for each period
 - \circ F = Shot For Us
 - \circ A = Shot Against Us
 - MISS F = M issed Net Shot by Us
 - \circ BLK F = Blocked Shot by Us
 - GRADE A "F" = Grade A (home plate area) shot by Us and includes all Grade AA Shots for Us
 - GRADE A "A" = Grade A (home plate area) shot against Us and includes all Grade AA Shots Against Us
 - GRADE B "F" = Grade A (home plate area) shot by Us
 - GRADE B "A" = Grade A (home plate area) shot against Us
 - PP "F" = Power Play Shot for Us
 - PP "A" = Power Play Shot Against Us
 - AA "F" = Grade AA (rectangle area net front) Shot by Us
 - AA "A" = Grade AA (rectangle area net front) Shot Against Us
 - 0
- Advise the coaching staff of the results after each period





2. TEAM AND PLAYER SHOTS REPORT FORM

(OPPONENT) (SCORE): PLAYER GRADE A, AA, GRADE B SHOTS

Date:

US: _____ Grade A's, __ goals (including ___ AA's, __ goals) and ___ Grade B's (__ goals) = ____TOTAL SHOTS:

THEM: ____ Grade A's, ___ goals (including ___ AA'S, ___ goals), and ___ Grade B's (____ goals) = ____ TOTAL SHOTS

____BLOCKED SHOTS ____PP SHOTS ____SCREENED SHOTS

#	Player – Name	Grade A Shots(AA)	Grade B Shots	Total Shots/Goals
DEFENCE				
FORWARDS			-	





3. TEAM AND PLAYER BLOCKED SHOTS COLLECTION FORM

SEE BELOW











4. TEAM AND PLAYER BLOCKED SHOTS REPORT FORM

(OPPONENT) (SCORE): PLAYER GRADE A, AA, GRADE B BLOCKED SHOTS Date:

US: _____Blocked Grade A's (including ___Blocked AA's and ____Blocked Grade B's = ____TOTAL BLOCKED SHOTS:

THEM: ____ Blocked Grade A's (including ___ Blocked AA'S, and ___ Blocked Grade B's = ___ TOTAL BLOCKED SHOTS

____ BLOCKED SHOTS, ____ BLOCKED PK SHOTS

#	Player – Name	Grade A Blocked Shots(AA)	Grade B Blocked Shots	Total Blocked Shots
DEFE	INCE		-	
	FORWARDS			





5. GOALIE REBOUND SHOTS/GOALS

GOALIE REBOUND SHOTS/GOALS

Opponent: _	Date:	Data
Collector:		

TEAM	Period 1	Period 2	Period 3	Overtime	TOTALS
Against Us					
Total					
Against Opponent					
Total					

A "rebound shot" occurs only <u>after</u> there is a shot stopped by the goalie (not necessarily on net) and a rebound shot happens immediately after on the rebound without an intervening pass. If there is another rebound shot(s) after the initial rebound shot count these too. **If any rebound shot misses the net, mark it ("X")**.





Mark each rebound shot by a check mark in the period box above and total at the end of each period. **If a goal is scored on the rebound shot, circle the check mark**.

Do the same for our opponent's goalie in the boxes above, but in stead of a check mark insert our player's number who took the rebound shot, and **if any rebound shot misses the net, mark it ("X").** Posts or cross bars, or saves where the puck would not have gone in are missed nets.

6. PLAYERS SHOOTING % REPORT Date:

Games Played:

SEE BELOW





#	Player - Name	Games Measured	Total Grade A (AA)Shots	Total Grade B Shots	Total Shots	Shots Per Game Ave.	Total Goals	Shooting % Goals /Shots Taken
	DEFENCE							
	FORWARDS							