# FAX

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## Subject: RATING PROCEDURES

#### 1) BONUS POINTS

- Awarded to players who achieve a statistically significant outperformance. Statistical considerations establish certain thresholds for a rating gain beyond which it becomes accepted that a player is substantially undergraded.
- The thresholds are:

N	Threshold		
4	32	3 pt	BONUS = 1 point for each rating point gain
5	35	addition	in excess of threshold.
6	38	for	
7	41	each	IMPORTANT NOTE
8	44	game	These limits apply only when $K = 32$
9	47		So for for other K factors, first calculate for
10	50		K = 32, then adjust.
11	52	2 pt	
12	54	addition	
etc.			

- Only players whose post event rating is <2100 may receive bonus points. No player may pass 2100 by means of bonus points.
- Gain + Bonus should not result in the new grade exceeding Rp.
- No player where K = 24 applies is entitled to bonus. [See below]
- 2) <u>FEEDBACK</u>
  - A player whose opponent earns bonus will have his game against that opponent rerated using the opponents Rp or new rating, whichever is the lower. [The USCF use Rp, but this would most likely be inflationary in our case]
  - In the case of ungraded or provisionally graded players, the feedback is the opponents Gain + Bonus divided by the number of games on which the rating is based.
- 3) <u>K FACTORS</u>
  - K = 16 applies to all players >= 2100
  - K = 40 applies to those < 21 years old whose rating is <2100
  - K = 32 applies to those >=21 years old, whose rating is <2100, and where the difference between the players "Start Year" and the current year <=8
  - K = 24 all others.

[Note: the current list year is 89, your "Start Year" is given as 70 so in your case K = 24 applies. This control tends to protect the grades of settled players]

• The higher K factor is the only distinguishing feature in the rating of those <21.

## 4) <u>FEMALE PLAYERS</u>

No special rules. But they should be identified as such for selection purposes.

5) <u>PROVISIONAL PLAYERS</u>

Where N<20, treat as Prov. If in rating an event, N goes from, say, 18 to 24, the formula for a Prov. player applies throughout. After the event the player will be recognized as fully graded.

6)  $U/Gs \ v \ U/Gs$ 

A game where an U/G plays another U/G must be disregarded <u>if there is no other interplay</u> <u>against graded players</u>. But if there is, then we enter the world of simultaneous equations. These lend themselves to easy solution by iterative methods. For any U/G player we get an

<u>estimate</u> of his rating by his results against rated players only. Then these estimates are successively revised taking into account his play against other U/G players and <u>their</u> estimated ratings. Finally, you wind up with a set of consistent ratings, i.e. where an estimate does not change significantly from one iteration to the next.

# 7) ORDER OF RATINGS

- U/G players
- Prov. players
- Revise those U/G & Prov. players who played Prov. players, i.e. rerate them against their post event rating [or their Rp if this is higher provided the number of games on which this Rp is based is >=5]
- Graded players.

Hope this helps.

Fred