## Pre-dealt Boards and Dealing Machines

## Why use pre-dealt boards

The use of pre-dealt boards at bridge clubs is becoming increasingly widespread for very good reasons:

- With pre-dealt boards you can make print-outs of the hands available at the end of the event. This may be of no interest to some players, but can be extremely valuable to those who wish to improve their game.
- Pre-dealt boards enable the club to take part in Simultaneous events, where players compare their results with those at other clubs playing the same boards.
- For teaching purposes it can be useful to prepare several copies of the same board, which can be used by several groups of students at the same time.
- For larger clubs, an event can be split into two sections (e.g. of nine tables each) using two sets of the same boards, so that the sections can be compared or merged in the scoring. However, when merging results, section sizes and movements should be as similar as possible to ensure fairness. It may be preferable to have a winner in each section rather than a single winner under merged results.

Pre-dealt boards can be made up by hand by someone who is not going to take part before a duplicate or by a teacher before a class. Boards can also be pre-dealt at the beginning of an event, one set of boards being made up by the players at each table according to pre-printed curtain cards, and the sets then passed on to the next table to be played. This only works if the number of tables and the movement are such that the boards will not be played by anyone who was involved in making them up, e.g. with thirteen tables where only twelve rounds of two boards are played.

## Dealing machines

The process of producing pre-dealt boards has been made much easier by the advent of dealing machines with their associated computer software. The two main types of dealing machine on the market are Duplimate and PlayBridgeDealer. The former is more common and uses well established
technology but needs special bar-coded cards. The latter is less widespread but functions with ordinary playing cards.

## Advantages

Some of the advantages of using computer-dealt boards are:

- Hand dealt boards are usually not random, whereas computer programs produce random deals. (see Randomness below) Hands do not need to be dealt at the table, thereby saving time. It is much easier to produce print-outs of the hands.
A computer file of the hands can be uploaded to a club's website, so that members can view the hands alongside the travellers for each board.
- A computer file can be made available to members who wish to replay the hands on their own computers.
- It is easier to prepare several copies of the same board for classes.

However, dealing machines are costly and not affordable for all clubs. Clubs who don't own a dealing machine may be able to arrange for the County Association or another club to supply pre-dealt boards (and printed hand records) for a small fee.

## Randomness

It has been calculated that a deck of cards needs to be given a proper 'riffle' shuffle at least six or seven times for the deal to be quite random. Overhand shuffling mixes the cards poorly, and it requires some 200 overhand shuffles to approach randomness in the card order. So most hand deals at the club are far from random. On average, hand dealing results in flatter distribution than one would get with a truly random pack.

One of the great advantages of computer dealing is that the program can be set to produce random deals. When a club first introduces computer dealt boards, there are often complaints from members that the hands are too wild and have been fixed. This is because the hands they are used to playing have generally been poorly shuffled. The club management needs to explain this to the members. A few facts and figures about expected distribution in randomly dealt boards might help:

- A void can be expected once in every 20 hands, i.e. once every five boards
- A singleton can be expected once in every three hands.
- Thus it is more likely than not, on any given board, that one of the players has a singleton or void. In fact, this will be the case on $80 \%$ of the boards.
- In a typical 24-board session you, personally, would expect to hold a singleton or void on about 9 boards on average.
- If there are 6 cards out against you as declarer, $15 \%$ of the time you can expect them to break 6-0 or 5-1.
- Follow this link for more facts about card distribution probabilities.

After a while members get used to the computer-dealt boards and may find an evening of hand-dealt boards relatively 'boring' in comparison.

All EBU-run competitions, including Simultaneous Pairs, use computerdealt random boards.

