

STV for Small Elections

Pre release edition
prepared by
the KPFK Elections Working Group

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I. Introduction

After a successful battle to recover the Pacifica Foundation from an almost complete takeover by corporate interests, the Foundation Bylaws were rewritten and approved in 2003. These new Bylaws provide a democratic governance structure, with multiple levels of elections intended (among other things) to make hostile takeovers extremely difficult. In the largest class of elections, the Listener-Sponsors elect Delegates in each of Pacifica's five signal areas – WBAI in New York, WPFW in Washington D.C., KPFT in Houston, KPFA in Berkeley and KPFK in Los Angeles. The Delegates of each station area elect Directors to the Pacifica National Board (PNB). These elected Delegates also serve with the station's General Manager and any associate station representatives as members of Local Station Boards (LSBs), which are standing committees of the PNB.

There is a separate membership class for paid and unpaid Staff, who elect Staff Delegates. Staff elections may see one or two hundred ballots returned, while Listener-Sponsor elections typically have anywhere from two to five thousand participating voters.

Each LSB annually elects its own officers, its delegate representatives to standing PNB committees, and its Director representative to a Committee of Inclusion. The LSB officers typically also serve as officers for local Delegates' meetings. As dictated by the Foundation bylaws, all of these elections are conducted using the Single Transferable Vote (STV) method, when more than one office is to be filled, and the Instant Runoff Vote (IRV) method, when just one office is at stake. With IRV there is always only one office to elect. Consequently, IRV elections are much simpler to tally, and should never require a computer in small elections.

IRV can be thought of as the simplest form of STV, so henceforth when STV is referred to in this handbook, it is to be understood that the same basic rules and theory apply to IRV. When IRV is mentioned, it will be as a specific form of STV.

The STV electoral system allows voters to list multiple candidates in order of their choice (hence it is sometimes referred to as "choice voting"). If a voter's first choice is defeated, her votes transfer, according to specific rules, to second or subsequent choices. This abbreviated description may sound simple enough, but STV is complicated to tally, just as it may be complicated to understand in detail. Still, lest these words of caution deter you, be assured that hand tallying can be learned with a bare minimum of effort, once the will to do so is applied.

With this in mind, the KPFK Elections Working Group (EWG) concludes that STV warrants a definitive written guide for use in smaller Pacifica elections. We have also come to believe that computer tallying is not appropriate for these small elections, as the available software ultimately may introduce needless complications, which may be beyond the scope of this manual to explore in detail.

Because general LSB elections involve the participation of thousands of Listener Sponsor voters, tallying the results will typically require numerous transfers of sequentially ranked votes, according to STV rules. Transferable votes, at times, will be divided into fractions, and those fractional votes, often enough, will be divided further into fractions of fractions. The only prac

tical way to carry out operations with this level of mathematical complexity in large elections is indeed by computer. In fact, as of this writing, the specific way in which Pacifica carries out its large elections precludes any thought of hand tallying.

To date the software used by Pacifica and its various stations, has been a line of products from a company called Voting Solutions www.votingsolutions.com, and in particular a ballot tally program called ChoicePlus Pro CP Pro. CP Pro is the only currently available software acceptable for tallying Pacifica elections. The curious may be intrigued by an open source STV program called pSTV, available at stv.sourceforge.net. pSTV is in its beta development stage, which indicates it may not be sufficiently robust for elections within Pacifica at this time.

The first Pacifica elections (Winter of 2003-04) were directed by National and Local Election Supervisors, essentially temporary hired specialists, with assistance from numerous volunteers. The volunteers were largely responsible for the keyboard data entry, which translated ballots into files the software could understand. For the second series (Fall and Winter of 2004) the National Election Supervisor employed the services of a commercial election management firm TrueBallot, Inc. that introduced specialized ballots and ballot scanners, along with other time saving equipment.

After each major election cycle, the National and Local Election Supervisors complete their employee status and depart. This leaves the lion's share of "institutional memory" about elections to the volunteers. As of this writing no staff person at Pacifica has any designated responsibility concerning the elections of and by its governing boards. For now it might be hoped that the hard working Elections Committee of the PNB may be drawn into filling this void.

As a consequence of the transient nature of election supervisory staff, there tends to be adequate technical knowledge about STV on hand only during the scattered occasions of major elections.

To provide a relevant and detailed reference for computer tallied STV elections, we are preparing a companion handbook *STV by Computer*.

By contrast, *STV for Small Elections* is written specifically to provide a reference and guide for small elections, which may be tallied by hand. In these small elections the LSB Delegates, numbering no more than twenty four, or the PNB Directors make up the electorate, and neither an Elections Supervisor nor TrueBallot, Inc. is anywhere to be found.

These small elections are typically held as part of an LSB meeting. They may be hand tallied sometimes with a computer crosscheck. There may even be time pressure and the unforgiving scrutiny of observers.

The seemingly simple process of hand tally has some finer points – areas where the proper procedure may be unclear. Given that elections are potentially contentious spectacles, an authoritative guide, focused specifically on Pacifica's particular application of STV, would seem a useful item. Pacifica's rules for tallying STV elections are laid out in detail in the Pacifica By laws, Section 15, Article 1, *Voting Methods*, which we will refer to from time to time for guidance on how exactly to proceed with various aspects of the tally.

Because there is an evident, real need for voters, candidates and observers to have confidence that election operational procedures are valid, consistent, and unbiased, we are presenting the results of our experience and research into this compact manual.

Oddly enough, considering the vast number of documents published worldwide in English about STV, there has been nothing that could serve as a Pacifica STV handbook available “off the shelf”. This handbook along with the related volume dealing with computer tallies is intended to play a dual role in Pacifica and member station elections. It can be a useful tutorial for those persons planning and conducting elections, or simply interested in the Proportional Representation election process mandated in the Bylaws. It is also meant to be a practical guide for anyone who conducts or oversees small elections where the electorate numbers a few tens of voters and the tally may be conducted without the aid of a computer.

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The KPFK Local Station Board Elections Working Group was formed as a unit of the KPFK Governance Committee in March, 2005. Current members of the Working Group are Fred Blair, Art Stasney, Jack VanAken, and Roger Zimmerman.

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Special Note for Pre-release Version

This release of *STV for Small Elections* is the first distributed version, and is considered by its authors to be a preliminary text. It should be assessed accordingly.

2. STV in Perspective

What is the purpose of adopting a complicated voting system like STV?

If you are reading this handbook, you have likely heard about how IRV mitigates the “spoiler effect” of third party candidacies. Possibly of broader interest is that IRV can also save the cost and delay of an actual run-off election. IRV becomes useful, in single seat elections, when neither of the two top vote getters receives more than half the votes cast. The lowest vote getter is eliminated and her votes are transferred to subsequent choices on the ballot. Voters who indicated the eliminated candidate as their preference still may determine the outcome of the election. By voting their true preference, which may have been for a losing candidate, IRV provides that voters need not waste their vote.

Similarly, in multi-office elections, such as for boards and councils, STV method allows ballots which may have been cast for losing candidates to not be wasted, but rather to help elect voters’ second and subsequent choices. With STV, even votes cast for winning candidates are used more efficiently. Here is an illustration:

Suppose there are 8 candidates seeking 4 seats on a board, with an electorate of 1,000 voters, in a conventional plurality election (top 4 vote getters are elected). Let’s suppose that Candidate A is hugely popular, and at election time garners 600 votes. The other three candidates who ultimately are elected get their offices with an average of about 133 votes, yet they presumably have as much power and status on the board as Candidate A, who represents 600 voters. This is true even if the three winners besides Candidate A are roundly detested by Candidate A’s 600 voters. In effect many of the votes cast for Candidate A went to waste, because if you divide 1000 votes among 4 seats, it would seem that 250 votes should yield a seat on the board.

Here is where STV comes into play, with its formula for transfer of “surplus” votes cast for a winning candidate. These surplus votes assist candidates indicated as second and subsequent choices. With STV, roughly speaking, Candidate A’s surplus votes (about $600 - 250 = 350$) would have transferred to choices determined by Candidate A’s supporters. They would not have to feel they were wasting a vote by indicating a front-runner as their first choice, because Candidate A’s surplus will be transferred to reflect the intent of Candidate A’s supporters.

From this example it should be clear how STV tends to reflect the various proportions of the electorate more accurately than a plurality election. Election systems aiming to do so fall within the larger category of Proportional Representation. An election system is said to be proportional to the extent that it is capable of representing the overall makeup of the electorate. The ideal for Proportional Representation is that every significant voting group should have some means of finding political expression. Consequently, the ultimate measure of STV in application is its *proportionality*.

With sizeable, computer tallied elections a few, scattered procedural decisions likely will not

affect the outcome, nor the proportionality, of the election. But in small, hand-tallied elections, such as when a Local Station Board elects its representatives to the Pacifica National Board, each ballot can affect who gets elected, and each procedural decision may have an impact on the proportionality of the process as well. Voters, candidates and observers generally come to understand this, and are certainly justified in expecting a transparent and comprehensible process. In order to provide a process acceptable by these criteria, it is vital for election operators to thoroughly understand why things are done a certain way.

One crucial point is that the total STV universe entails any number of variants, often contradictory, perhaps even to be deemed quirky, by reasonable standards. A few of the serious contradictions between these variants may become apparent if you attempt to apply Pacifica rules to an election using a computer tally. It is primarily because of these contradictions that the KPFK Elections Working Group has come to discourage the use of computers in small elections, such as elections by the body of Delegates, or LSB.

As a baseline to understanding STV you need to have clearly in mind that there is no recognized STV standards body and no widely accepted manual on STV – no STV “bible”. You can’t run an STV election “by the book”, because there is no such definitive reference work.

Instead there is a wealth of articles, a few books, and some computer software with occasionally helpful documentation. Small guides appropriate for particular venues have been published by universities, local governments, non-profit organizations, and commercial vendors of election terminals and systems. There is overall similarity among the sources about STV, and some definitions and procedures are universally recognized (at least in English-language venues and publications). One example is the mathematical definition of the Droop threshold, which is a common formula for determining how many votes a candidate will need to get elected. But the Droop threshold is not in universal use by any means. In fact, the older (and arguably less proportional) Hare threshold is fairly common. A quick search of the Internet will reveal how tally rules, in detail, vary significantly from one source to another.

Seeing as CP Pro is the STV software already adopted by Pacifica to some extent, it would seem that adapting to the rules followed by CP Pro would be a suitable course of action. Unfortunately, the CP Pro rules do not perfectly conform to the election procedures spelled out in the Pacifica Bylaws (Article Fifteen, Section 1, *Voting Methods*). The Bylaws specifications must take precedent in all Pacifica elections, so contradictions between the CP Pro rules and the Bylaws rules do create a dilemma.

To make lemonade out of lemons, as the colloquialism has it, perhaps we should just consider that an examination of these problem areas will reveal some of the finer points of STV transfer methods. Whether these issues between common computer tally methods, and the potentially different outcomes arrived at via appropriate hand tally, can be resolved legally is another matter. What is beyond question is that any hand tally can be carried out in conformity to the Bylaws, while some computer tallies may not.

One problem area involves dealing with ties. Vote counting tallies in STV are made up of cycles of distributions of votes called *rounds*. On a given round a tie may occur, either for the candidate with the most votes, or for the candidate with the least. The Bylaws specify that last place ties be resolved by the drawing of straws, but CP Pro follows the *previous round method*,

when applicable, which is a decidedly non random procedure. Issues surrounding ties will be explored more fully in Section 5 of this handbook, which contains a step by step guide to a hand tally.

Other thorny issues appear in STV, upon which the Bylaws are silent.

Duplicate rankings are the occurrence on a ballot of more than one candidate receiving the same rank. Permitted by National Election Supervisors in two Pacifica election cycles, it is the recommendation of the Elections Working Group that duplicate rankings be discouraged, and where possible, banned. Duplicate rankings complicate hand tallies to a significant degree in small elections, and render all hand tallying unthinkable in even relatively large elections. There will be a full discussion of duplicate rankings in the Appendix to this handbook, albeit in a future edition.

With STV, especially in large elections, gaps will inevitably appear on some ballots. A gap is an instance where a voter has indicated rankings in sequence, but has omitted one or more rankings. The Elections Working Group recommends that you simply skip any gaps on a ballot when doing hand tallies. After all, you should have instructed the electorate about the inadvisability of using low rankings to punish candidates more about that later so anyone voting with such a deliberate strategy has no excuse. The software programs used by Pacifica to date employ a similar method, actually the software equivalent of skipping over the gap. Doing so in a hand tally should not be viewed as a departure from normal practice.

Another quirk related question that may come up goes something like this: “How come the first candidates elected have to meet a threshold of X votes, while some candidates elected at late rounds make it with fewer than X votes?”

The explanation lies in the fact that, quite likely, not every voter will rank every candidate. When such ballots transfer, it is very possible that they will have no place to transfer to. Such ballots are termed *exhausted*.

It is because of exhausted ballots, essentially having no value, that the threshold may effectively be reduced in late rounds. It is as though the pool of valid ballots, calculated early on into the threshold formula, has shrunk, and so the threshold is recalculated later with a smaller value. In some systems the threshold is reduced in practice, whereas with Pacifica STV a threshold can only be said to have been reduced *theoretically*. With practice this should become clear, so encouragement is given to practice a hand tally before taking on a real election.

And finally, something comparatively easy: a note about the value of a ballot that gets transferred twice or more as a result of candidates being elected. Such a ballot can get “marked down” twice, thereby reaching a very small fractional value – so small it is unlikely to have a significant influence over an election’s outcome. Election operators might be persuaded to have a pocket calculator, or notebook computer, handy to calculate very small fractions.

It should be clear by now that explanations of STV in the abstract are not, perhaps, terrifically simple to follow. Fortunately an example tally of a suitable mock election, with specific ballots, vote counts, etc. is, by comparison, easy enough to comprehend. A “numerical example” is exactly what is presented in Section 6 with some possibly helpful forms available in Section 7, so that Section 6 becomes the concrete illustration of the generalities of the step by step guide in Section 5. It is our hope that sections 5 and 6 taken together may prove to be the fastest and best path to an understanding of Pacifica STV.

3. Preparation and Setup for Election Tallies

Conducting a small STV election involves more than just carrying out a tally without mishap, even though the tally is a core technical operation to any election. All the myriad tasks which must go into the preparation for the tally are vital, and may prove to be more challenging than the tally itself. Personal qualities necessary for successful preparation would have to include the possession of a fair degree of common sense, as well as the ability to adapt to unique circumstances –unlikely as this might seem within an organization made up primarily of anarchists and visionaries.

If the election team has control over the design of the ballots, then you will do well to make sure that they are easy to read and understand, and also easy to mark unambiguously. *Grid for mat ballots* have the advantage of reducing the need for interpretation of the voter's penmanship, but time and circumstances do not always permit the creation of grid ballots. You will see there are various sample ballots provided throughout this handbook. Feel free to use them as templates for designing ballots according to your own particular needs.

Ballot instructions are a good idea, provided they are clear and concise. Probably they need to consist of no more than a sentence or so, as a cluttered ballot may serve only to confuse voters

Local Station Board to PNB Committees				
Committee of Inclusion				
Fill in no more than one square per rank				
<i>KPFK PNB Reps:</i>	RANKING			
	1	2	3	4
Dave Adelson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lydia Brazon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alan Minsky	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Don White	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GRID BALLOT

who may already be partially confused over grids, STV etc. They can be read aloud to the electorate, if the election is done entirely at one gathering or meeting. However, be forewarned that reading ballot instructions to an LSB can prove to be the converse of a rewarding experience. Some board members will view your efforts to address them as an opportunity for sidetalk and commotion. You may even sense the collective attention drifting away to non electoral diversions. In spite of this seeming uphill climb, the complexity of STV demands that time be set aside for the election operators to address the electorate and answer any questions that may arise. If nothing else, you may seize such an occasion to urge board members not to use duplicate rankings and to avoid creating gaps on their ballots.

Probably no preparation is so important as being sure to have appropriate tally forms at hand. These may be custom designed and printed for a particular election, or could be copies of the sample forms included in Chapter 7. These include a vote count form and a round by round result form, with spaces to perform a *checksum* see Chapter 5 .

Assuming you have a designated venue and volunteers scheduled in advance to assist with the election, you are well on your way to holding a successful small election. You must have enough table space, a few chairs, and enough room to move around. It is very important to keep sound levels at an acceptable level, so that information transmitted orally will be clearly audible. If for any reason you intend to use a computer or other electronic equipment, obviously additional table space and an electrical outlet with power strip will be required.

STV tallies are performed by placing ballots into piles, each associated with a candidate, plus the *exhausted tally*. The EWG recommends using shallow trays of some sort to keep piles of ballots nicely separated. Another reason for using ballot trays is that they can easily be labeled and covered as necessary.

An assortment of office supplies such as index cards, varieties of tape, markers in several colors and line widths, ball point pens, clipboards, notepads, cardboard for spur of the moment signs, scissors, paper clips, a pocket calculator, a good stapler, all are liable to come in handy. At the conclusion of the event you may want to seal the ballots in an over sized envelope, so be sure to have some of those on hand as well.

Any explanatory material about STV voting which you may have in your possession is likely a good thing to make available. Also, a copy of the Pacifica Bylaws, specifically Article Fifteen, Section I, *Voting Methods* which you may have heard about will likely be useful for answering questions from observers.

Most small elections in Pacifica will be held as part of a Local Station Board meeting, so it is important to correlate the election time and procedures with the chair of the LSB, or facilitator if it is some other type of meeting . Election operators need to have a reasonably assured time to begin, plus a chance to address (briefly but uninterrupted) the gathering at the beginning of the election process, to describe the procedures and issue any needed specific instructions. Such instructions should without fail be issued verbally before any ballots are distributed. Prior arrangements should be made for the distribution, collection, and tally of the ballots, and some sort of separate space designated for the tally, which should always be carried out in full view of observers.

Depending on anticipated duration of the tally process, you may consider obtaining distract

tion and comfort items, such as snacks, soft drinks, coffee, the day's newspapers etc., all of which tend to have a soothing effect on observers.

Importantly, preparing in advance to have results posted on the station website in a timely manner should help contribute to a sense of transparency. Possibly an officer of the LSB or a volunteer is involved in getting notice of meetings posted on the website and could facilitate making this happen. Otherwise election results could be incorporated into meeting minutes and posted wherever those are made available.

Local Station Board to PNB Committees

_____ **Committee**

Fill in no more than one square per rank

KPFK non-PNB Delegates:

	RANKING						
	1	2	3	4	5	6	7
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

GENERIC GRID BALLOT

4. Ballots

In Chapter 3 we should have made clear our preference for the grid format ballot, which is particularly well suited to small elections. With grid ballots the only thing required to indicate preference is “blacking in” a square, so a voter’s handwriting ordinarily does not become an issue. Grid ballots also allow for instant detection of duplicate rankings. One drawback of grid ballots is they provide an opportunity for voters to accidentally give one candidate more than one rank. Fortunately, a candidate given more than one rank is meaningless in STV, so the easy solution is to accept the highest rank only.

In spite of the apparent simplicity of grid ballots, they are certainly not going to be understood immediately by everyone. In fact, at first glance some may view large grid ballots as bewilderingly complex. To clear up any such confusion, a set of instructions should be composed to accompany the grid layout, such as: “Only one vote for each candidate. Only one vote for each column.” Still some voters will inevitably write numbers into the squares, and will want to know if they are supposed to fill in the squares, or mark them with checks, and so on. A visual aid, such as a didactic panel featuring an oversized grid ballot, can be very helpful in getting the message across. For easier reading, on the ballot itself you may try adding a space every four or five rows or so.

A sample grid ballot from the 2004 KPFK Local Station Board Listener Sponsor election is included at the end of this chapter, and there are sheets of sample ballots for the mock election provided in Chapter 6 on pages 30–43.

Alternate formats are certainly possible, and may be suited to particular elections. The most common alternative to grid format is a simple column of all candidates with spaces for voter rankings next to each. Here is an example of such a ballot, though it does contain one design flaw. In order to accommodate last minute nominations, this ballot has assigned letters to the

LSB to PNB Directors	
Do not rank more than one candidate per rank.	
_____	Candidate A
_____	Candidate B
_____	Candidate C
_____	Candidate D
_____	Candidate E
_____	Candidate F

candidates, in lieu of their actual names. What happens if some voter decides to mark the spaces with alphabetical letters instead of numerals? How will such a ballot be interpreted?

LSB to PNB Directors	
Do not rank more than one candidate per rank.	
<u> <i>c</i> </u>	Candidate A
<u> <i>e</i> </u>	Candidate B
<u> <i>d</i> </u>	Candidate C
<u> <i>a</i> </u>	Candidate D
<u> <i>b</i> </u>	Candidate E
<u> <i>f</i> </u>	Candidate F

You can see in the ballot above that it could be reasonably decided the voter intended the letters to represent numeric values, in which case Candidate D would have been ranked as first choice, Candidate E as second choice and so on. But how can you be sure the voter did not intend to list the candidates by initial in descending order? In this case Candidate C would be ranked first, Candidate E ranked second. It would probably have been better to leave the names at the right blank, taking the time to fill them in at the last minute to avoid this potential for confusion.

Whatever format is ultimately chosen, it is preferable for small hand tallied elections to have small ballots printed on card stock. These are easiest to handle, and can be color coded for multiple elections. Always be sure to prepare extra ballots so that voters may request replacement ballots should they make an error of some sort.

It generally makes sense to provide a space for write in candidacies on the ballot, even though there is little real justification for a write-in candidacy in a small election. But, seeing as there always may be some confusion regarding rules of nomination, it makes sense to be prepared for the off chance that write-ins might occur anyway. The board officers likely will be aware of any serious attempts at launching a write-in candidacy, so good communication with the officers is vital here. When appropriate, the chair should announce prior to voting that write ins will or will not be counted.

It should go without saying that it is good to be prepared for seemingly inevitable duplicate rankings more than one candidate given the same rank that turn up on returned ballots. Pa

cifica has a recent tradition of accepting duplicate rankings, so it may be difficult to achieve an absolute ban on them. However it is within the purview of the election team to advise voters during preliminary, instructional remarks that to vote more than one candidate at the same rank is not in their best interest as voters, and that it complicates the tallying process as well. You may also add that it tends to generate a disproportionate number of ties. Most Delegates won't want all of their officers, directors etc. selected by the toss of a coin.

01  Pacifica Radio Foundation P 01
KPFK Listener-Sponsor Election 078-04-01

2004 Local Station Board - Listener		Mark each box like this ■																									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Bill Gallegos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terry Goodman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Learner Goude	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roberto Haraldson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effrom Harrison	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kimberly King	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Casey McFall	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Leslie Radford	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Harrison Weil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Jean Boenish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lydia Brazon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Wendy Campbell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bella De Soto	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Israel Feuer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Francisco Flores	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Write in

Select Each Candidate by Preference
Your 1st choice should get a mark in the first box, your 2nd choice in the second box, and so on.
Mark each box like this ■

DETACH HERE BEFORE ENCLOSING BALLOT PORTION IN SECRET ENVELOPE
SEE REVERSE SIDE FOR INSTRUCTIONS



THIS ADDRESS SHOWS IN THE RECORD OF THE RETURN ENVELOPE

KPFK Local Station Board Election
2107-D.W. Commonwealth Avenue, # 363
Alhambra, California 91803

DO NOT DISCARD THIS PORTION
PLACE IT IN THE RETURN ENVELOPE


JOHN (JACK) VAN AKEN
17601 SIERRA HILL ST

CANYON COUNTRY, CA 91351-1639



01 
JOHN (JACK) VAN AKEN

Signature

Local Station Board members to Pacifica National Board committees

PNB AFFILIATES COMMITTEE

Fill in no more than one square per rank.

R A N K I N G

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Grace Aaron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sara Amir	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rodrigo Argueta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maria Armoudian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Marie Dearie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Bill Gallegos	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sherna Gluck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Sonali Kolhatkar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Margaret Prescod	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Julie Rodriguez	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Madeleine Schwab	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fernando Velazquez	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Harrison Weil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lamont Yeakey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Grid ballot with spaces every 3 rows

5. Election Hand Tally, Step by Step

Here is a set of detailed instructions for conducting an STV hand tally.

The fabled complexity of this procedure, you may rest assured, is not difficult to grasp, once you've walked through a mock election (or even a real election). Once past the initial hurdle of actually *wanting* to learn, and with a little middle school math, the basics should become clear. To help you test your skills we have included a practice election in Section 6.

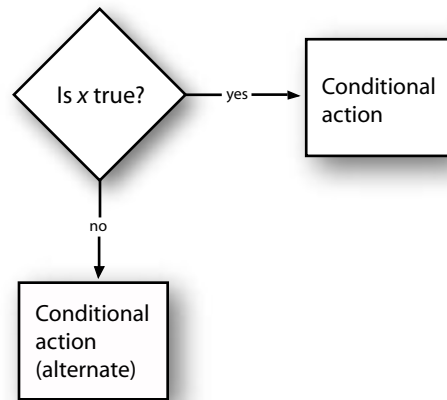
Any STV tally can be broken down into three main steps. Of these three steps, the first two are for the most part entirely straightforward. It is Step Three, with its slightly elaborate series of vote transfers, which contributes to STV its reputation for complex tallies.

Step Three itself can best be viewed as a self contained looping structure, because in Step Three you will repeatedly return to the same condition or unresolved state of tally until the election is complete. These redundant actions are typically referred to as *rounds*. Loops, rounds, cycles, whatever you call them, Step Three is a process that must be repeated until either all seats have been filled, or until there are only as many candidates remaining as there are open seats left.

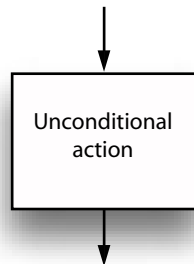
Suffice it to say, that if you follow the three steps, looping repeatedly through Step Three as necessary, you should be able to perform a hand tally with relative ease.

For the sake of understanding the flow charts in this chapter, it is probably a good idea to break each of the three steps down conceptually into one or other of two kinds of "Actions". These actions make up the atoms and molecules of the tally. They can be categorized as either *conditional* or *unconditional*.

If an action is conditional, it will only be carried out after evaluating the result of a prior action. For example, if the presence of a certain possible condition is evaluated as true, one conditional action should occur. But if the presence of the same possible condition evaluates as false, a different conditional action would be called for. In a flow chart such an evaluation is depicted by a diamond-shaped box, with a question posed inside it, while rectangular boxes typically contain instructions (although in these two examples they simply indicate unspecified actions to be taken):



If an action is unconditional, then it will automatically be carried out as a necessary phase of the tally—no prior decision required (the first step of any tally will be an unconditional action).

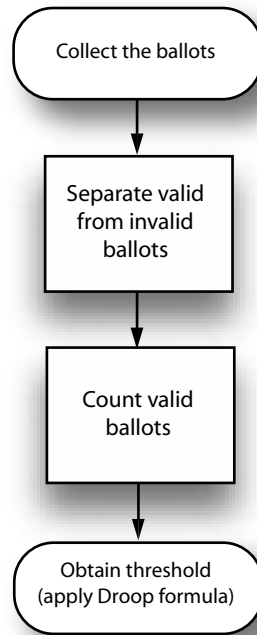


The following series of flow charts represent the three steps in simplified form. The obround boxes here represent the beginning or end of a process.

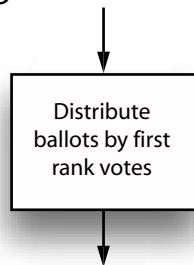
In Steps One and Two all actions are unconditional. With Step Three we encounter both unconditional and conditional actions. The looping structure of Step Three should be clear from the flow chart, as arrows lead from various actions back to the initial obround box, at which point a round will have been completed.

It may take several rounds before an election is complete. Step Three itself can be thought of as a series of rounds, initiated at Step Two.

STEP ONE



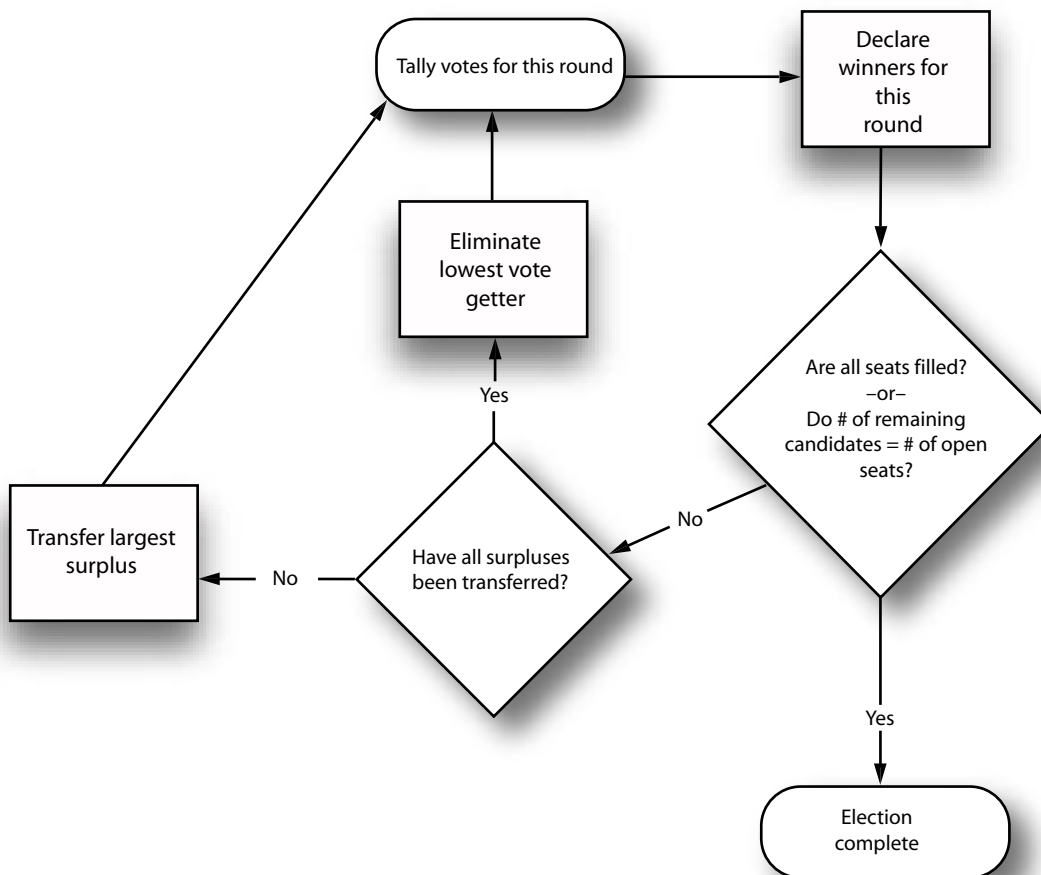
STEP TWO



Before starting a hand tally you should have assembled ballot trays, markers, labels, tally sheets etc. as described in Chapter 3.

The description of a tally that follows can be used in conjunction with the tally flow chart immediately above and on the page following.

STEP THREE

**Step One****Action 1a:** *Collect the ballots.*

While mere collecting of ballots would seem to be simple enough, in actual practice, at Local Station Board meetings, collecting ballots might typically involve a protracted struggle on the part of election operators to draw the attention of easily distracted LSB Delegates.

To collect all of the ballots under such circumstances can prove to be challenging indeed. Consequently it is a very good idea to count exactly how many ballots will be distributed in advance, and to be sure upon collection that each and every ballot is accounted for. This is vital, not only because it is part of a good, orderly practice, but also because the total number of returned ballots will play a part in determining the threshold needed for election.

Action 1b: *Separate valid ballots from invalid ballots.*

Determining the number of valid ballots is another deceptively simple matter, which in fact it can involve some finer points. On the one hand, if you have prepared your ballots in a way that is easy to understand and fill out – never a sure thing where Pacifica and STV are involved – the vast majority of ballots should return filled out as instructed and with the voter’s intent clearly indicated. But some ballots inevitably will not be so easy to figure out. These are called *problem ballots*, and must be treated carefully.

Blank ballots constitute the simplest possible problem ballot scenario, and, believe it or not, they have turned up in LSB elections, and elections by the LSB. Because there is no ambiguity about blank ballots, they can be eliminated from the tally without much rigamarole. Illegible ballots present a more challenging scenario. As a principle, every effort should be made to determine the voter’s intent. This may involve scratching of heads, holding up to the light, etc. Problem ballots do serve to illustrate the advisability of having an election team of three or more, and hopefully observers present, who may provide creative suggestions for the resolving issues which problem ballots introduce.

At the end of the day, if, in the carefully considered opinion of the election team, a ballot is entirely illegible, or the voter’s intent is somehow indiscernible such a ballot is simply not valid, and may be disregarded entirely, according to Robert’s Rules *so long as it cannot affect the result*. Unfortunately with STV, with its complicated tally involving often several rounds, it is not a simple matter at the outset knowing whether or not a given ballot could affect the outcome. As a consequence, virtually all ballots need to be treated as though they could affect the outcome. In such an instance *Robert’s Rules of Order* dictates that the “tellers” which is how parliamentarians derisively allude to the election team shall present the problem ballot to the chair of the LSB, who will in turn present the matter to the body. The chair will invite the election team to explain the nature of the problem ballot to the assembled group, who hold the ultimate responsibility for handling problem ballots.

To summarize: On problem ballots every effort should be made to interpret voter intent. Before disqualifying any ballots, where the outcome may be affected, be sure to notify the chair, who will inform the body of the matter, presenting the ballots and seeking their consent (or disapproval) for the disqualification.

At the end of this action you should have only valid ballots left to deal with.

Action 1c: *Count the valid ballots.*

Here is the first really easy action. Mark the number of valid ballots on your tally form. You need this number in order to calculate the threshold. Should you also make a record of any disqualified ballots? It probably won't do any harm. One good idea would be to number each ballot in pen or pencil for future reference.

Action 1d: *Apply the Droop formula to obtain the threshold.*

The Droop formula reads as follows:

threshold = $1 + (\text{valid ballots}/(\text{seats}+1))$ rounded down to the nearest integer

Be sure to always round *down* and never *up*.

If you refer to the Bylaws you may notice there is no reference to rounding down. In all probability this is an error, so please avoid (if possible) arguing about it at tally time and just round the number down. Someday the Bylaws will get fixed, and this error will be corrected, but for the time being we are stuck with the Bylaws as written.

So, when you have calculated the threshold you should find yourself looking at an integer, not a number that includes a fraction such as *seven and one half*. If you somehow come up with a number plus a fraction, simply drop the fraction.

Once the threshold has been determined, it should be announced to the election team, and to any observers present. Also, make a note of the threshold on your tally form.

Note: Some systems of STV tally allow for an adjustable threshold. Because Pacifica has become accustomed to a fixed threshold, that is the method we recommend here.

Step Two

Action 2a: *Distribute ballots according to first rank votes.*

You should now have prepared ballot trays, or bowls, any set of shallow receptacles should do (aluminum pie tins, for example). Each ballot tray should be marked with a candidate's name, and one tray marked "exhausted".

If you absolutely have nothing to serve as a ballot tray on hand, you may stack the ballots in piles, provided there is some label to identify each pile by candidate, with one pile for the exhausted tally. Each ballot should probably have a first rank vote indicated, although there is a possibility that some problem type ballots may not. In the situation where there is not a first rank vote indicated, but some lower rank is indicated instead, you may best be advised to “collapse” the ballot, thus elevating whatever highest rank is indicated to be essentially the first rank vote. *See the section on “Gaps”.*

Now you can distribute the ballots into the trays according to their first rank votes. For instance, any ballots indicated with “Candidate A” as the first choice should be placed in the tray marked “Candidate A”. When you are finished every valid ballot should be in a tray.

You might also perform your first *checksum* here. A checksum occurs when you total up all of the votes in every pile and compare that result to the initial number of valid ballots. They should always be the same. As the tally progresses through the rounds, the checksum will help keep you on track and may even catch a few errors. With checksums, and careful tallying, you can be reasonably confident, at every round, that you haven’t committed a significant error.

Step Three

Action 3a: *Tally the votes for this round.*

This action is simply a matter of counting the votes each candidate has received so far, which is the same as counting how many votes are in each pile.

The first time you perform this action, every ballot is worth exactly one vote. But as you perform this action a second, third, fourth time, and so on, some ballots will need to be counted which have been marked down in value to a fraction of a vote, as indicated by a marking on the ballot. If ballots have fractional values marked on them, count each of those ballots according to that indicated fractional value, e.g. if a ballot has “1/4” marked on it, count that ballot as one fourth of a vote.

It is possible that this action will be performed only one time. If so, then all seats will be filled, and the election is over. But it is more likely that you will return to this action at least once, after subsequent actions have been performed.

Mark the results on your tally form. Go to Action 3b.

Action 3b: *Declare winners for this round if any .*

At this point any candidates who have received a total number of votes equal to or greater than the threshold are declared elected if they have not been so declared already . This does *not* mean these results should be announced to the body. Just mark them “elected” on your tally sheet. The ballot trays of the elected candidates should be marked or somehow covered so that they do not receive any additional transferred votes.

This Action concludes a round, so that means it is time to perform another checksum. Add up the tally of votes attributed to each of the candidates, including the exhausted tally. This total number should equal the original number of valid ballots. If not, then go back a step and figure

out where you went wrong. The error should be somewhere between this checksum and the prior checksum.

Once the checksum is clear, you may go on to Action 3c.

Action 3c: *Are all seats filled?*

Count the number of candidates if any who have been elected. If the number of candidates elected is equal to the number of seats to be filled, the election is over.

—But if all seats are not filled—

Count the number of unfilled seats.

Count the number of remaining candidates remaining candidates have neither been elected nor eliminated .

If the number of unfilled seats is equal to the number of remaining candidates, then those remaining candidates should be declared elected, even if they have not reached the threshold.

Candidates *can* be elected if they have not achieved the threshold! But only in Action 3c. If all seats are now filled, the election is over. Mark the final results on your tally form. You won't need to perform a final checksum, because no transfer has taken place since the last such check.

—But if the number of unfilled seats is *not* equal to the number of remaining candidates

Proceed to Action 3d.

Action 3d: *Have all surpluses been transferred?*

At this point, if there are candidates who have been elected, one or more may well have received a total number of votes in excess of the threshold. Such candidates are said to have a surplus.

A candidate's surplus is calculated according to this formula:

$$\text{surplus} = (\text{total votes received}) - \text{threshold}$$

If more than one candidate has a surplus, determine which candidate has the largest surplus. In the case of a tie for largest surplus, refer to the "Ties" section at the end of these directions before proceeding further.

If one or more candidates has a surplus, go to Action 3e.

If there are no elected candidates with surpluses, then determine which candidate has received the least number of votes. Again, if there is a tie, refer to the section “Ties” at the end of these directions before proceeding further.

Go to Action 3f.

Action 3e: *Transfer votes from the largest surplus.*

In this action you will effectively distribute the surplus votes of the candidate with the largest surplus (which you have identified in Action 3d.)

Surplus votes must be transferred at a *fractional value* of their prior value.

At the onset of tallying, one ballot equals one vote in every case. When ballots transfer from a surplus they never transfer with a value of 1, but always with a value of some fraction of their prior value. If a ballot has already been transferred from a candidate’s surplus, then it will have a fractional value already. Whatever value a ballot had on the last round (if this is the first round, it will automatically have a value of 1), that *prior value* will be multiplied by a fraction in order to get the *new value*. Here is how you calculate the new value for ballots being transferred from a surplus:

$$\text{fractional value} = \text{surplus} / \text{total votes received}$$

Then calculate the ballots’ new value as follows:

$$\text{new value} = \text{fractional value} \times \text{prior value}$$

The new value will *always* be a fraction of the prior value.

Write the new value on each of the ballots in the tray of the candidate whose surplus you are to distribute. For some ballots there may be more than one fractional value marking on the ballot. The fraction with the smallest value will always be the current fractional value.

Place each ballot into the ballot tray of the remaining candidate ranked highest on the ballot, being sure *never* to transfer votes to a candidate who has been either elected or eliminated.

If there are no remaining candidates indicated on a ballot, then that ballot gets transferred to the exhausted tray.

For purposes of calculating the checksum, it is important to remember that once a candidate’s surplus has been transferred, that candidate needs to retain a value of votes equal to the threshold. This only exists on your tally sheet, not in the actual ballot bowl or pile. As always, the checksum itself should tell you whether you have performed this correctly or not.

Go back to Action 3a.

Action 3f: *Eliminate lowest vote getter.*

In this action you will distribute all of the votes of a candidate who has just been eliminated. This will be a candidate who, on the last round, had received the least number of votes which you have identified in Action 3d).

Each ballot from an eliminated candidate will be transferred at the full value it held on the last round. This may be either one whole vote, or a fractional value, if the ballot has been transferred from a surplus already. It may also be a fraction of a fraction of a vote, if the ballot has been transferred as a surplus more than once.

Take all of the ballots from the eliminated candidate's pile, and place each ballot into the ballot tray of the highest ranked surviving candidate on the ballot. If there are no remaining candidates indicated on a ballot, then that ballot gets transferred to the exhausted tray.

For purposes of the performing the checksum, in contrast to the situation described in Action 3e above, an eliminated candidate retains *no* votes whatsoever after his/her ballots have been transferred.

Go back to Action 3a.

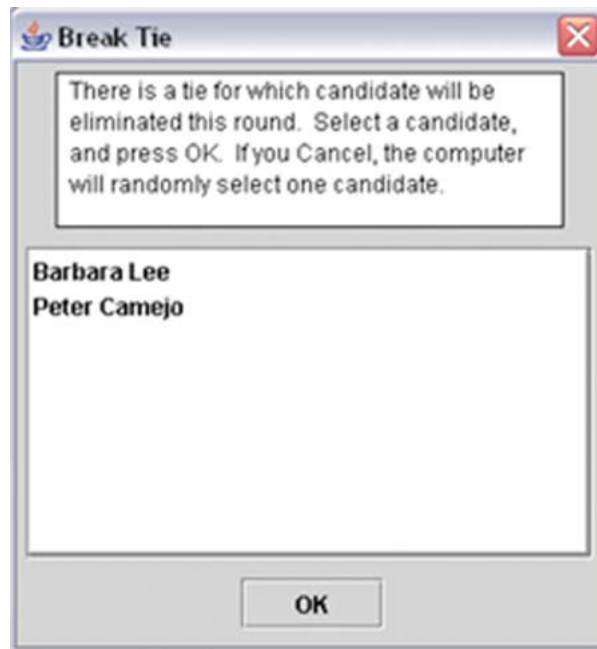
Ties

There are two situations in an STV hand tally where you may be confronted with a tie. By far the kind of tie most likely to be significant to the outcome of an election is a lowest vote-getter tie.

The other kind of tie occurs when two or more candidates have the identical number of surplus votes. The Pacifica Bylaws are silent on the matter of how to resolve ties between surplus vote values, quite possibly based on the assumption that the sequence must be irrelevant. EWG has determined that the sequence in which surpluses are transferred can, in some instances, affect the outcome of an election. Consequently, we feel there must be a procedure set in advance for dealing with this situation as it arises. For tied surpluses our recommendation is that you use the previous round method. Look on your tally sheet to see which of the tied candidates had the most votes on the previous round and transfer that candidate's surplus first. If there is a tie as well in the previous round, go to the round prior to that to resolve the tie. If the tie occurs on the first round, use a random method such as coin toss, drawing straws, or picking names from a hat.

The Pacifica Bylaws are clear on how to break a tie for last place. Article Fifteen, Section One A5(d) states: "If there is a tie as to the candidate with the least number of votes, the candidate to be first eliminated shall be decided by drawing straws."

This generally rules out using the previous round method for low vote getters in hand tallies. In the event that a computer cross check is being performed, CP Pro will use the previous round method where applicable. When CP Pro is unable to resolve the tie using previous round, it will present you with a choice for resolving the tie with a message such as this:



If you are performing a computer cross check, likely with CP Pro, you would optimally want all ties resolved in perfect conformity between the hand and electronic tallies. Because changing the way CP Pro works is not a ready option, and because the Pacifica Bylaws must legally determine how election procedures are carried out, simply ensure that the hand tally serves as the tally of record, and make clear via written and oral announcement that the software tally may not resolve some ties according to tally methods prescribed in the Bylaws. The EWG sees no alternative to this solution until either the software is updated, or the Pacifica Bylaws are amended.

Footnote

1. Computer programmers may recognize Step Three in its entirety as a loop algorithm. Action 3b essentially asks the question "Is the election complete?" If the answer is yes, then you exit the loop. If the answer is no, then you go through the loop again. Fortunately, you don't need to be a computer programmer to perform a hand tally.

6. Small Mock Election for Hand Tally

To provide a sample STV tally, we have created a small 40 valid ballots mock election, with seven candidates named, alphabetically, “Candidate A” through “Candidate G” competing for three open seats on a committee.

The ballots in grid format have been given serial numbers. The serial numbers allow tracking of transfers of individual ballots. The selection of votes cast should make the election a reasonably informative and typical example.

A printed version of the complete mock election is included at the end of this chapter, suitable for printing.

There are no duplicate rankings, and there are no gaps in the rankings essentially making the tally easier to follow. This section includes both blank ballots and all the marked ballots for the mock election, printed 12 to a page on card stock, so they may be cut apart and used in an actual “test run” hand tally.

Each ballot carries all the information available about the voter’s intent. For STV tally purposes, ballots acquire two important additional items of information (which may change as a tally progresses): 1) ballot location, i.e. which candidate the ballot indicates is to receive the corresponding vote which tray the ballot is in ; and 2) the weight or value of that vote. Note that a ballot is a physical object, while a vote is a conceptual numerical value derived from the value of a ballot, possibly a fraction as a result of having been transferred. Since votes are derived directly from ballots, it doesn’t really matter whether a discussion speaks, for example, of transferring ballots or transferring votes.

At any stage of an STV election, the vote count of each candidate is the sum of the values of all the ballots assigned to that candidate. As an STV election is tallied and rounds of candidate elimination or election and resulting ballot and therefore vote transfers take place, ballot locations and vote values change, and of course so do candidates’ vote counts. At the beginning of an election, every ballot is assigned to the indicated first choice candidate, and the value of every ballot is 1. Ballot values may decrease as a result of candidates being elected with more votes than the required minimum. The value of a ballot can never exceed 1 nor reach 0.

Just to make following this tally of the mock election easy, the candidates’ popularity, as reflected in count of first-choice designations, diminishes in alphabetical order of candidate names. The initial or “Round 1” counts of first-choice designations are as follows: A: 9 ; B: 7; C: 6; D: 6; E: 5; F: 4; G: 3.

Serial or ID numbering of the 40 ballots is arbitrary, but it so happens the ballots were numbered by first-choice candidate in reverse alphabetical candidate name order. This ordering serves no particular purpose, other than to hopefully provide a useful aid in analyzing the paths of vote transfers.

A list of the 40 ballots in order of ID number (one line of the list equals one ballot) is pre

sented below. It should be easier to digest than the four sheets of grid format ballots:

C H O I C E								C H O I C E							
Ballot ID	1st	2nd	3rd	4th	5th	6th	7th	Ballot ID	1st	2nd	3rd	4th	5th	6th	7th
1.	G							21.	C						
2.	G	A	D	B	C	E	F	22.	F	E	D				
3.	G	F	B	A	E	C	D	23.	C	G	B	D	F	E	A
4.	F	G	A	D				24.	C	D	E				
5.	F	B	E	G				25.	B	A					
6.	F	E	D					26.	B	C	G	D	E		
7.	F	A	D					27.	B	E	F	G	A		
8.	E	A	D	C				28.	B		G	D	C		
9.	E	F	B	D				29.	B						
10.	E	G	A	B				30.	B	F	D				
11.	E	B	C	D	G			31.	B	C	D				
12.	E	D	C	G				32.	A						
13.	D	E	C					33.	A	G	F	E			
14.	D	A	G	C				34.	A	B	C	D	E	F	G
15.	D	B	C	A				35.	A	D	B	C			
16.	D							36.	A	D	E	B			
17.	D	F	C					37.	A	C					
18.	D	C	G	B				38.	A	G	F	E			
19.	C	A	D					39.	A	G	D	C	F	B	E
20.	C	D	G	B				40.	A	D	C	E	B		

It is recommended that election operators should try to do their own tally of the ballots represented above, referring to Section 5 for instructions.

The self tutorial tally could be done either by cutting apart the set of 40 physical ballots which we have included, and doing a tally involving actual individual ballot trays and transfer of ballots from one tray to another, or in a sort of narrative form keeping track of steps and rounds on paper, as follows here.

There are comments about the tally in the remainder of this section.

As applied to this mock tally, Step One is simple. Because all 40 ballots are valid, note that $v = 40$. The number of offices is 3. Plugging this information into the Droop threshold formula:

$$d \text{ (an integer - no rounding required) is } 1 + 40/(3+1) = 11 \text{ votes}$$

Step Two is quite simple as well for the mock tally. The grouping and counting by designated first choice candidate is already done.

Step Three becomes operative. Here follows a round by round analysis of the transfer and tally part of the mock election.

Round 1 No candidate has reached the threshold and none is therefore elected, so Candidate G, as the lowest vote getter with only 3 votes, is eliminated.

Round 2 begins with Action 3e, the transfer of the three ballots with Candidate G as first choice (G's ballots). One is a first-choice only ballot, so it is transferred to the exhausted pile. Another has A as second choice, and the last has F as second choice. After the transfer, the candidates' vote counts (in name order, followed by the exhausted ballot count) for **Round 2** are

A: **10**
 B: **7**
 C: **6**
 D: **6**
 E: **5**
 F: **5**
 G: **0**
 Exh: **1**

No candidate has yet reached the threshold, which means returning to Action 3f, which eliminates the lowest vote getter. Candidates E and F are tied for last place with 5 votes each, necessitating exercise of some tie break protocol.

NOTE! The protocol invoked by CP Pro is to eliminate F because at the previous round actually to start

with , F had a lower vote count than did E. That works for this election, so to conform with the tie breaking method of CP Pro, candidate F is declared eliminated, concluding both Action 4 and Round 2. But, if the decision had been made to conform to the Pacifica Bylaws prescription for resolving last place ties, straws would have been drawn, possibly yielding a different outcome.

Round 3 begins with transfer of Candidate F's ballots to his/her indicated second choices, with another trip through Action 3a, which tallies the new totals. Candidate A gets a vote from Ballot 4, which cannot transfer to Candidate G because G has been eliminated. Candidate A also picks up a vote from Ballot 7, to add to the one vote from Ballot 2 received when G was eliminated, and the first place votes from Ballots 32 - 40. Votes from Ballots 3 and 5 go to B, and Ballot 6 transfers its vote from F to E. The new vote count is:

A: **12**
 B: **9**
 C: **6**
 D: **6**
 E: **6**
 F: **0**
 G: **0**
 Exh: **1**

Looking at A's new vote count, A is declared elected with 1 surplus vote, concluding Action 3b.

Round 4 involves first asking the question posed by Action 3c "Are all seats filled?" The answer is clearly "no", because only one candidate has been elected, and there are two seats remaining. The second question posed by Action 3c, "Do the open seats equal the remaining candidates?" is also answered "no" since there are a total of four candidates remaining for those two vacant seats.

Now Action 3a decrees that Candidate A's surplus shall be transferred. Recall that a candidate's surplus is transferred by reducing the value of all that candidate's received votes and transferring them all. The formula to determine the transfer value of each of A's votes must be employed. In this case 12 total votes, minus the threshold of 11 yields a surplus of exactly 1, which must be divided by the total number votes Candidate A had received:

$$(12 - 11)/12 = 1/12 = \mathbf{0.08333...}$$

Each of the 12 ballots which had been sitting in Candidate A's tray at the time of his/her elec

tion will now be transferred to subsequent choices with a value of 0.08333... In hand tallies you may prefer to use standard fraction notation rather than decimals.

In this round both B and C, have each received a single ballot from A, so each have their vote counts increased by 0.083 decimal precision limited to 3 places for display purposes . Candidate D received 7 transfers from A, so D's count increases by

$$7 \times 0.083333... = \mathbf{0.583}$$

and E's count increases by

$$2 \times 0.083333... = \mathbf{0.167}$$

The updated vote count at the end of **Round 4** looks VERY different than what has been seen so far, because of the fractional value of the transferred ballots:

A: 0
 B: **9.083**
 C: **6.083**
 D: **6.583**
 E: **6.167**
 F: 0
 G: 0
 Exh: 2

Perhaps disappointingly, no remaining candidate has achieved the threshold count of 11 votes on this round, so Candidate C, who is now the lowest vote getter, with only 6.083 votes, is eliminated. All of Candidate C's votes must now be transferred.

NOTE! CP Pro at this point shows A not with 0 but with 11 votes the threshold , and the exhausted tray number is 1.08333 rather than 2. This is apparently a matter of convention. CP Pro always shows elected candidates with the threshold number of votes, despite the fractional transfer of ALL the votes cast for elected candidates. CP Pro also shows for the exhausted pile the cumulative count of votes, but 2 is the integer number of "physical" ballots in the exhausted tray. For an example focused on hand tallies with likely actual physical ballots and ballot boxes, the numbers here seem to be more appropriate, and certainly avoid a possible source of confusion.

Observe the very tiny effect of the ballots from A! This is because all but one of these ballots is “used up”, so to speak, in electing A probably one reason why CP Pro leaves 11 ballots with A), and the effect of the ballot surplus is diluted by the transfer to several different candidates. This is a key property of STV when using fractional transfer method!

Round 5 begins with a transfer of eliminated Candidate C’s 6.083 votes. At this point C has assigned 7 ballots with differing values: 19 through 24, each with a value of 1, and Ballot 37, which had been transferred from Candidate A with a value of 0.083. The transfer of C’s votes is easy: Ballots 19, 20, 22, and 24 all go into Candidate D’s tray (Ballot 19 could not be transferred to Candidate A who has been elected ; Ballots 21 and 37 are sent to the exhausted tray, and Ballot 23 gets transferred to Candidate B. The new vote count at the end of **Round 5** is:

A: 0
 B: **10.083**
 C: 0
 D: **10.583**
 E: **6.167**
 F: 0
 G: 0
 Exh: 4

Again no remaining candidate has reached the threshold, so the question must be asked as per Action 3c “Do the open seats equal the remaining candidates?” Because there are 3 remaining candidates, and two open seats, the answer is “no”. Proceeding to Action 3f, it is time to eliminate the lowest vote getter, in this case Candidate E with 6.167 votes. This concludes **Round 5**.

Round 6 begins with the distribution of Candidate E’s 6.167 votes. At this point E has been assigned 8 ballots with differing values: Ballots 6, and Ballots 8 through 12, each with a value of 1, and Ballots 33 and 38, each with a value of 0.083.

The transfer of Candidate E’s votes is straightforward: votes from 6, 8 and 12 are transferred to D notice that Ballot 8 could not be transferred to Candidate A, who was already elected ; Ballot 9 transfers to Candidate B’s tray (Ballot 9 could not transfer to Candidate F, who was eliminated, you will recall, via CP Pro’s previous round rule), Ballot 10 transfers to Candidate B being unable to transfer to either G or A , and Ballot 11 transfers to Candidate B as well; while Ballots 33 and 38 go to the exhausted tray. With the next tally it is discovered that both candidates B and D have exceeded the threshold and are elected. The update vote count at the end of **Round 6** is:

A: 0
B: 13.083
C: 0
D: 13.583
E: 0
F: 0
G: 0
Exh: 6

<p>BALLOT ID # <u>7</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>BALLOT ID # <u>8</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>BALLOT ID # <u>9</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>BALLOT ID # <u>10</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>BALLOT ID # <u>11</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>BALLOT ID # <u>12</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>

<p>BALLOT ID # <u>13</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>BALLOT ID # <u>14</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>BALLOT ID # <u>15</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>BALLOT ID # <u>16</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>BALLOT ID # <u>17</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>BALLOT ID # <u>18</u></p> <p>CAND. R A N K I N G</p> <p> 1 2 3 4 5 6 7</p> <hr/> <p>A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>C <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>D <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>E <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>F <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>G <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>

7. Election Results Documentation

This section is intended to provide suggestions about how and when to distribute the results of small hand tallied elections, and only such elections – the computer tallied big elections have a surfeit of available printouts documenting every aspect of the election.

Here a distinction will be made between “outcome” and “result”. “Outcome” will simply refer to a list of winners. “Result” will add to that any and all information about what happened at each round, the order of elimination/election, final vote counts, ties and how they were broken, and so on.

An outcome is no problem to report, as the appropriate tally form will be handed to the chair or convener of the meeting, who can announce the winners. Documenting a result, which may be a bit complex and time consuming, is more difficult, and *should be done in close conjunction with a written chronicle of an election round by round tally*. Good notes utilizing forms prepared in advance during a tally should make publication of an acceptable result document fairly easy. Since small Pacifica elections can be configured in a great variety of ways, it’s hard to anticipate ahead of time what kind of tally blanks or forms would provide the greatest assistance either with a tally or with publishing the result thereof, which is why no sample forms were provided in either Section 5 or Section 6. There is also some advantage in allowing election operators to create tally paperwork that they are comfortable with – the goal of a tally is to get the result. Documentation and publication of that result is a bit constrained, since it is intended for distribution and should be as easy to understand as possible.

It’s difficult to know ahead of time, even for small Pacifica elections, such basic things as how many candidates to list on a form. One might expect, for example, in an election from some LSB with 24 members providing the totality of the electorate, and perhaps 3 offices, the candidate roster would be unlikely to exceed six. But there is no guarantee! It is not impossible, however unlikely, that ALL the LSB members might choose to run for places on a particularly popular 3 seat committee – candidates can of course be voters as well, so in terms of the number of candidates the election isn’t that small. A form based on an anticipated maximum of a half-dozen candidates would not work without some modification.

On pages 50 thru 52 there are two sample tally forms – one is two sided.

The first is a tentative round-by-round “Vote Count Form” that should be tried in a mock election and improved based on the experience gained. The spaces to enter data are rather crowded, but there is a lot to be said for forms that fit on a letter-size sheet. Supplemental sheets, for more candidates and/or rounds, are certainly a possibility. The choice of 6 candidates and 8 rounds on the sheet partially shown within this document is strictly to show the layout of the form.

The second form (the “Result Form”) doesn’t show explicitly which candidates are elected or eliminated at which round, although that information can be derived from the numbers entered: if a candidate’s count first becomes 0 at some round, then clearly the candidate was declared eliminated at the end of the previous round. Similarly, the first time a candidate’s count equals or exceeds the threshold, the candidate is elected at that round. So some kind of round-by-round summary form is needed and useful – and a great assist in avoiding errors and the hassle they may cause!

STV ELECTION ROUND-BY-ROUND VOTE COUNT FORM

ELECTION _____ VENUE _____ DATE _____

ELECTION OPERATORS _____

s = # of OFFICES _____ v = # of VALID BALLOTS _____ d = DROOP THRESHOLD _____

CANDIDATE	VOTE COUNT by ROUND NUMBER							
1 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
2 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
3 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
4 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
5 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
6 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
7 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
8 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
9 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
10 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
11 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
12 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
13 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
14 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
15 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
16 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
17 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
18 _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
EXH _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____
Checksum: _____	1 _____	2 _____	3 _____	4 _____	5 _____	6 _____	7 _____	8 _____

STV ELECTION ROUND-BY-ROUND RESULT FORM ~ Top Sheet

ELECTION _____ **VENUE** _____ **DATE** _____

ELECTION OPERATORS _____

s = # of OFFICES _____ **v = # of VALID BALLOTS** _____ **d = DROOP THRESHOLD** _____

Round 1 – Initial vote count and declarations based thereon

Refer to the **Round 1** vote count values on the **VOTE COUNT FORM**. On the basis of these counts, indicate results.

CANDIDATES ELECTED THIS ROUND (if none proceed to second part of form)

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE ELIMINATED THIS ROUND (Note any ties & tiebreak method on second line captioned "TIES")

CANDIDATE _____ **VOTES** _____

TIES _____

+++++

Round 2 – Vote count and declarations based thereon

Refer to the **Round 2** vote count values on the **VOTE COUNT FORM**. On the basis of these counts, indicate results.

CANDIDATES ELECTED THIS ROUND (if none proceed to second part of form)

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE ELIMINATED THIS ROUND (Note any ties & tiebreak method on second line captioned "TIES")

CANDIDATE _____ **VOTES** _____

TIES _____

STV ELECTION ROUND-BY-ROUND RESULT FORM ~ Continuation

ELECTION _____ **VENUE** _____ **DATE** _____

ELECTION OPERATORS _____

s = # of OFFICES _____ **v = # of VALID BALLOTS** _____ **d = DROOP THRESHOLD** _____

Round _____ **Vote count and declarations based thereon**

Refer to the **Round** _____ vote count values on the **VOTE COUNT FORM**. On the basis of these counts, indicate results.

CANDIDATES ELECTED THIS ROUND (if none proceed to second part of form)

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE ELIMINATED THIS ROUND (Note any ties & tiebreak method on second line captioned "TIES")

CANDIDATE _____ **VOTES** _____

TIES _____

+++++

Round _____ **Vote count and declarations based thereon**

Refer to the **Round** _____ vote count values on the **VOTE COUNT FORM**. On the basis of these counts, indicate results.

CANDIDATES ELECTED THIS ROUND (if none proceed to second part of form)

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE _____ **VOTES** _____ **SURPLUS** _____ **VALUE MULTIPLIER** _____

CANDIDATE ELIMINATED THIS ROUND (Note any ties & tiebreak method on second line captioned "TIES")

CANDIDATE _____ **VOTES** _____

TIES _____