# Navigation & Get-Outs

# For Sight Callers

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This paper is available for download from my web site: http://halbarnes.com/caller-resources/

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## Introduction

Many years ago, at a Frank Lane Caller's College, I was told that get-outs were important, but like many newer callers, I conveniently ignored that advice and focused on other aspects of calling that I deemed more interesting. Then fifteen years ago, I evaluated my calling and determined that my weakest area was get-outs. At that point, I began the slow process of studying and improving my get-outs. Working on get-outs led me to incorporate other types of modules into my calling. For the last year, I have wanted to write-up what I have learned in those 15 years but never had the time. With the COVID-19 virus forcing us to find entertainment at home, I decided this was an excellent opportunity to write this paper.

Callerlab has a large reference document in its knowledge base titled Callerlab Sight and Module Resolution Systems, February 2018 (Ref 1), which includes a thorough treatment of sight calling and modules from multiple authors. While the work here is consistent with the approach in that document, this paper adds value in the following ways:

- The target audience for this paper is the caller who has not been using get-out modules or the caller who wants to improve their get-outs writing technique. It provides some background material on concepts and terminology before proposing a realistic starting place and growth path for callers who want to begin using get-out modules. The Callerlab document has so much information that it is overwhelming to a new caller trying to figure out how to get started.
- This paper makes a significant contribution to navigation between stations. It devotes one chapter to traditional station navigation including a graphic view which is easy to follow. A second chapter proposes a new perspective on navigation which will appeal to more experienced callers.
- This paper applies the same station and get-out approach to geographic resolution: resolve-to-home and stir the bucket.

I developed this material long before the Callerlab reference document and CRaMS were available, but the approach here is totally consistent with that document. I have made an effort to adopt the terminology used in those documents unless I have a compelling reason to use something different.

A key aspect of this paper which is different from the many articles about calling techniques is the idea of what is most important. Papers that include an emphasis on sight resolution get to the corner in the fastest possible way because once the partner pairing is completed, the interesting part of the problem has been solved. This paper starts after the partner pairing is completed and addresses the question "How do we get to the corner in a smooth, interesting (perhaps elegant) way?"

Even though the target audience is the group of relatively new callers who are not using get-outs and other modules, other callers may also find these module writing techniques beneficial:

- Callers who successfully read their figures. These callers do not typically need stations or modules, but having a few bailout modules on hand for when the writing or reading goes haywire can be handy.

- Talented callers who can extemporaneously navigate to a variety of interesting resolutions in the course of the dance. My hat is off to you. Please write a paper showing me how to do that. Still, everyone should have a few gem get-outs added to the toolbox. In addition, the process of writing get-outs from a known FASR can improve the skills required to extemporaneously resolve.

I greatly appreciate the reviewers of this paper for their time and patience: Doren McBroom (Baltimore), Bear Miller (Denver), and Carl Truszynski (Denver). Their tough love caused me a lot of rewriting but resulted in a better quality and more readable paper.

Chapter 1 of this paper is devoted to explaining terminology and concepts.

Chapter 2 introduces the Station Navigation Map and its tight relationship to get-outs.

Chapter 3 recommends an approach for callers to begin using get-outs and how to organize the material.

Chapter 4 focuses on resolve-to-home and stir the bucket modules.

Chapter 5 is an advanced discussion of station navigation and get-outs with examples intended for more experienced callers.

The appendix consists of the following sections:

- Annotated references
- List of square dance call abbreviations
- Glossary of technical terms and new terms introduced throughout the paper
- Appendix A: Table of get-outs which are used throughout the paper
- Appendix B: Table of resolve-to-home get-outs from the Geographic Resolution chapter
- Appendix C: Table of rotational modules from the Advanced Navigation chapter

## Table of Contents

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## Chapter 1: Important Terminology and Concepts

Understanding the terminology and concepts in this chapter is important to participating in discussions about the technical aspects of calling. This technical language has been slow in gaining wide acceptance, but there seems to be a core which is relatively stable. This is encouraging as we who have been calling for over 50 years have seen many versions of schemes to identify the important setup positions. Remember Box 1-4 & Zero Box?

The State of the Square (FASR)

All the information necessary to resolve a square can be specified in four properties:

- Formation (F): The shape of the square including facing direction. (Facing Lines, Ocean Waves)
- Arrangement (A): The positions of boys and girls in the square: Normal (men on left), Half Sashayed (girls on left), Boy-Boy-Girl-Girl Lines.
- Sequence (S): The CCW sequence specified separately for boys and girls. Couple sequence 1234 is "IN" sequence. Sequence 1432 is "OUT" of sequence.
- Relationship (R): The partner pairings. For example, all have partners or two couples have partners & two have opposites.

The "setup" is the set of all four properties. For example, note how the following setup description uses the four properties: Normal (A) Partner (R) Lines (F) in Sequence (S).

See reference 1, pages 11 - 14 for a thorough discussion of FASR.

Station Terminology

Some setups are important enough that they have been given names as a convenience for discussing them. These named setups are called *Stations.* Boxes are named for who you are facing. Lines are named for who is your partner. Examine the following stations with checkers to see how the naming convention works.

- HEADS SQUARE THRU 4 results in corner box in sequence (CBI). Then a SLIDE THRU gives corner lines in sequence (CLI). Another SLIDE THRU results in a corner box out of sequence (CBO). A final SLIDE THRU gives corner lines out of sequence (CLO).
- Similarly HEADS SQUARE THRU 2 results in right-hand lady (RHL) box out of sequence (RBO). A series of SLIDE THRUs result in (RLO), (RBI), and (RLI).
- HEADS LEAD RIGHT, CIRCLE TO A LINE results in partner lines in sequence (PLI). A series of SLIDE THRUs result in (PBO), (PLO), and (PBI)

Note that in all of these setups both boys and girls have the same sequence: both IN sequence or both OUT of sequence. This will become significant when we look at modules. Two additional stations which are useful for this paper are

- Lead right box (LRB) (as in HEADS LEAD RIGHT) and
- Lead left box (LLB) (as in HEADS LEAD LEFT)

In these two stations the boys and girls have different sequences. See reference 1, pages 19 – 22 for diagrams of 15 named setups.

> Station ID Naming Note: Ref 1 uses CB for corner box IN sequence with the sequence being implied. I think the FASR sequence attribute is important and should be explicitly specified, not implied. Therefore, I have ended each IN sequence station with "I" to make the sequence explicit.

Modules

A module is a danceable sequence of calls with a purpose. Modules serve a variety of purposes:

- Zeros return to the same setup as the starting setup, although the geographic positioning may change. In other words, the square may have rotated 90 degrees, but the setup remains the same. SLIDE THRU, RIGHT & LEFT THRU, SLIDE THRU is an example of a zero module.
- Equivalents have the same effect as a single call. For example, SWING-T, SPIN TOP, R&LT is a popular equivalent of SLIDE THRU.
- Get-In module activates the dancers from a static square. Modular callers must track the full setup while sight callers track formation and arrangement.
- Get-Out modules resolve the square, ending at home. The final promenade may be implied. Get-out modules conclude with ALLEMANDE LEFT, RIGHT & LEFT GRAND, PROMENADE, SWING, DO PASO, CIRCLE, get-out to home, and get-out to stirred bucket.
- Flow modules are smooth combinations of calls used during sight calling formation management. Only the formation and arrangement result are important.
- Navigation modules are used to navigate between different stations.
    - Naming Note: Ref 1, page 41 defines “Conversion Module” as any module that moves from one known station to another. I think that the term navigation module is much more descriptive of the use. This paper will use the term navigation.

Modules are useful to callers because they

- Reduce complexity and mental overhead,
- Provide variety and interesting dancing for dancers,
- Provide tools for improving body flow.

I try to give the dancers good variety and interesting dancing by never repeating a get-out throughout the course of a dance. I am not smart enough to do that by inventing new get-outs on the fly. However, by knowing a number of get-outs and equivalents, I can provide that kind of variety. This demonstrates the reduced complexity and improved variety of get-outs.

Body Flow

Now let’s consider body flow in the packaging of equivalents/zeros and get-outs. Recently I participated in a caller discussion about what makes good dancing. The number one factor was smooth body flow.

Here is a get-out from corner lines IN sequence (CLI) setup

- 1/2SAS, SQ-4, R&LG

From a corner box (CBI) SLIDE THRU will bring us to station CLI but the body flow into a ½ SASHAY is not good. Here are two popular SLIDE THRU equivalents:

1) SWING THRU, SPIN TOP, RIGHT & LEFT THRU
2) TOUCH1/4, SCOOTBACK, BOYS RUN

We can see that the first gives a good flow into the get-out, while the second is world class bad. Let’s look further to find if the second can be salvaged. One good idea is to change the get-out to REVERSE 1/2SAS. The flow works, but this requires better dancers. The REVERSE 1/2SAS flows much better into a LEFT SQUARE THRU than a SQUARE THRU, but then we have a left hand available to the partner. So our new get-out looks like this:

TOUCH1/4, SCOOTBACK, BOYS RUN, REVERSE 1/2SAS, LEFT SQ-4, PARTNER LEFT DOPASO, C-TURN PARTNER AT HOME OR PROMENADE.

This detour shows how a simple idea can turn into a new get-out.

A second interesting idea is to use equivalent (2) and then find an equivalent for the 1/2SAS in the get-out. A good ½SAS equivalent is PST, TAG LINE, FACE IN. With these two equivalents, the get-out becomes TOUCH1/4, SCTBK, B RUN, PST, TAG LINE, FACE IN, SQ-4, R&LG.

The main take-away from this discussion is

- The equivalents/zeros and the get-out must package together for good flow.
- Choosing the equivalent first will limit our choice of get-out.
- Choosing the get-out first will limit our choice of equivalent/zero.

<u>Terms for Moving Dancers</u>

The main consideration here is the different methods of moving dancers, what information we track, and how we track it.

Modules are a known, fixed call sequence with a known starting and ending setups. It is a “black box.” This relieves the caller of all tracking during the module execution since the ending setup is known. With flow modules we know the starting and ending formation/arrangement.

Mental Image tracking is the ability of callers to visualize the square and follow the setup changes mentally. For simple changes, this allows us to move around without modules or watching the dancers. For example, using mental image what is the setup after each call below:

> HEADS SQ-2 [RBO], RIGHT & LEFT THRU [RBI], PASS THRU [no station name but you can state the FASR), TRADE-BY [CBI]

Formation Management is moving the square through a variety of formations and arrangements without trying to resolve the square. The caller may use flow modules and mental image in the course of this phase.

Navigation is purposefully moving the dancers from the current setup to a desired place. For example, when we begin partner pairing, we are purposely using calls to get certain dancers paired up. When we move dancers from one station to another using modules or mental image, we are doing navigation. Dancers may not be able to tell the difference between formation management and navigation, but these are very different activities to callers.

Patter Figure Lifecycle

The following table describes the patter figure lifecycle, showing the phases that a sight caller goes through in the course of a single figure.

## Patter Figure Lifecycle

| Phase | Sight Calling Action |
|---|---|
| **Activation** | Starts from a static square and gets the dancers moving. Callers may use a get-in flow module for variety. |
| **Formation Mgmt** | The square is manipulated extemporaneously with the caller tracking only formation and arrangement. Sight callers may use flow modules, zeros, and equivalents. Good callers distinguish one tip from another by developing a theme for each tip. The theme may be drawn from a variety of sources: a call, a formation, an arrangement, or a flow module. Formation management is the phase where the theme is developed. The theme may be carried forward into the resolution as well. |
| **Partner Pairing** (Landing the Plane) | Caller identifies key dancers and puts them together as partners as required. The end point is a station with known setup. |
| **Navigation to Target Station (Optional)** | From this point forward, we must track the full FASR setup by using modular or mental image techniques. This phase is optional since we may proceed directly to Resolution at the current station. Otherwise, we may navigate to a different station using mental image and station navigation modules then resolve at the new station. |
| **Resolution** | Two methods may be used to resolve: (1) the caller can navigate to a resolution or (2) the caller can navigate to a station and use a get-out module associated with that station. The resolution may get the dancers to an Allemande Left, a Right & Left Grand, or a Promenade. Other popular resolutions include resolving directly to home or to a stirred bucket square. |

The mental effort during the Formation Management phase is far less than during the Navigation and Resolution phases. For the sight caller, Formation Management feels like flying due to the freedom of tracking only formation and arrangement compared to tracking the full setup during the later phases. Just as planes eventually need to land and reconnect with the ground, sight callers must “land the plane” and reconnect with the full setup. This “landing” for the sight caller is establishing partner pairing to recognize the full FASR setup. The focus of this paper is the final two phases after the plane has landed.

## Chapter 2: The Station Navigation Map

The purpose of this chapter is to build a roadmap showing the routes a caller may take through Navigation and Resolution. The roadmap promotes easier understanding of the process and the various options available to callers. We begin with a brief discussion of the relationship between stations and get-outs. We then move on to three levels of increasing maturity in using get-outs with each level adding its routes to the roadmap.

Stations and Get-Outs

Stations provide a home for get-outs since the station is the starting place for its get-outs. The cartoon version of this relationship shows us arriving at a station and finding a list of get-outs posted on the wall. Appendix A gives a list of get-outs organized by station with the landing stations in the first table and other stations shown separately. This is the list posted on the wall.

Landing Stations

In the lifecycle discussion we used the analogy of landing a plane for the partner pairing phase. After landing the plane, the first recognizable setup is our landing station. Although experienced callers may have many landing stations, the following four stations are the most easily recognizable even for callers just learning sight resolution: partner lines IN sequence (PLI), partner lines OUT of sequence (PLO), corner box IN sequence (CBI), and RHL boxes OUT of sequence (RBO). These are the landing stations for the purposes of this paper.

Get-Outs Level 1: Land & Resolve

When we are first learning sight resolution, the hard work is partner pairing. Once that is done, we want to resolve the square as quickly as possible. Papers that teach site resolution pay no attention to interesting resolutions because that is beyond their scope of interest. In get-outs level 1, we take one small step toward more interesting resolutions by using a get-out attached to our landing station.

Figure 2-1 below shows our first version of the Station Navigation Map. The arrows show navigation initially from the formation management cloud to one of the four landing stations. The name of each station is shown in green along with the square snapshot. The dotted line shows the get-out list attached to each landing station.

This procedure is ideal for a caller just getting started with get-outs.

| | |
|---|---|
| We come out of the formation management cloud and find ourselves in landing station CBI. We could call LEFT ALLEMANDE from here but the point is to use a get-out. | |
| Then we check Appendix A for the get-outs for CBI. We have several choices. We pick one and call it. | SLIDE-T [CLI], PST, TAG=, CLOVER, R&LG |

The problem in real life is that Appendix A is stored in the head. The get-out lookup and selection must be done very quickly to keep the dance flowing. Our focus which has just been on partner pairing must quickly shift to station recognition and get-out selection without interrupting the flow. This quick shift of attention is demanding initially, but it improves with practice.

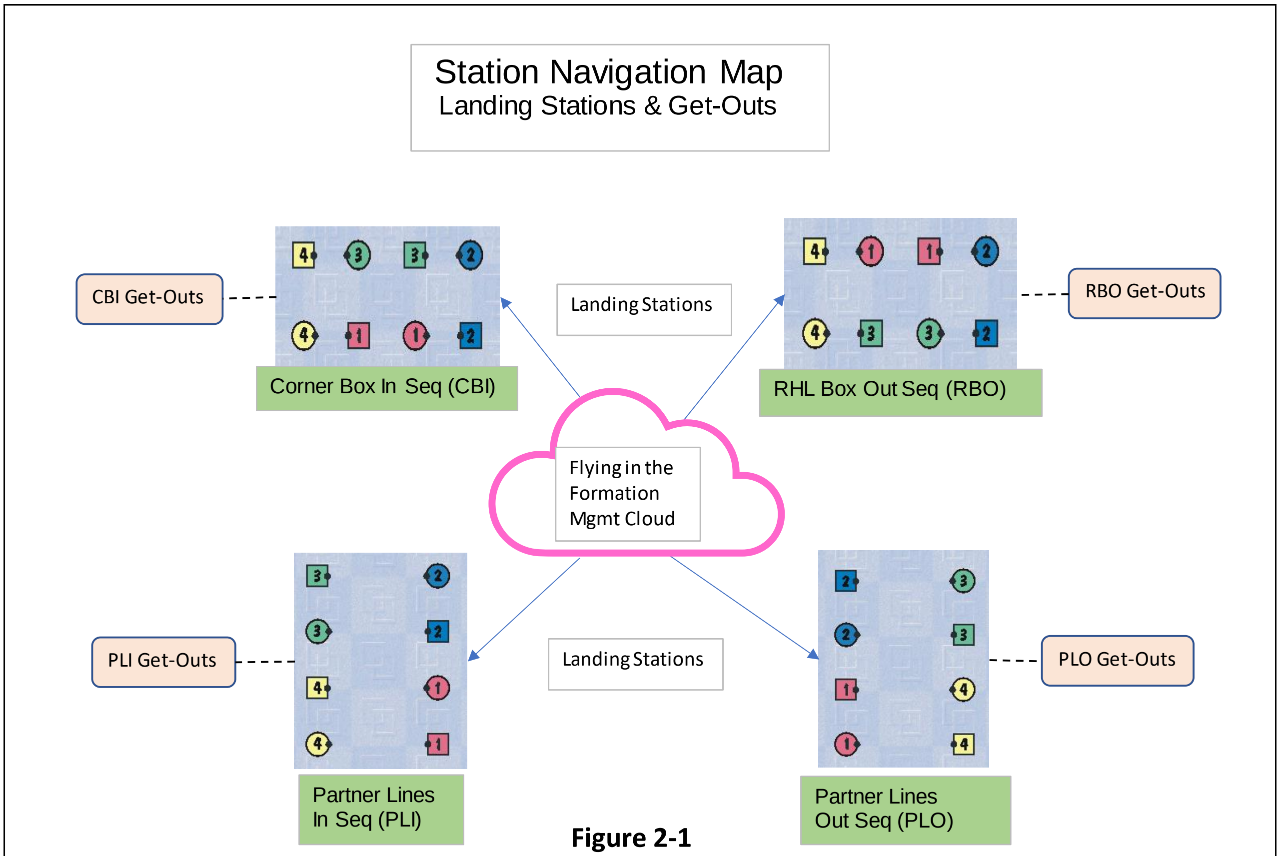



**Figure 2-1**

Get-Outs Level 2: Change Landing Station and Resolve

Now we want to navigate to a different landing station and use a get-out there. This is a common need, but it requires that we know how to navigate between the landing stations. Figure 2-2 shows the same Navigation Map from Figure 2-1 but with navigation modules and calls added. The orange modules were originally named "magic modules" by Bill Peters and the name has stuck. They are used to navigate between partner lines and corner box or RHL box as shown.

Suppose we are developing a call-based theme and want to use a get-out based on that theme. Appendix A has a number of get-outs based on a SCOOT BACK theme. We have decided to use the station PLO get-out: PS~, SCTBK, R&LG. The following example shows the navigation and resolution.

| | |
|---|---|
| We come out of the formation management cloud and have the misfortune of landing at CBI. We need to navigation to PLI which is across the world (see map). We decide to go down and then right. | Call the magic module to go from CBI to PLI.<br>[CBI] SWING-T, ENDS CIRC, CTS TRADE, CTS RUN, BEND= [PLI]<br><br>From the map we see the navigation from PLI to PLO.<br>[PLI] R&LT [PLO] |
| We have navigated to PLO. Now use the get-out. | PS~, SCTBK, R&LG |

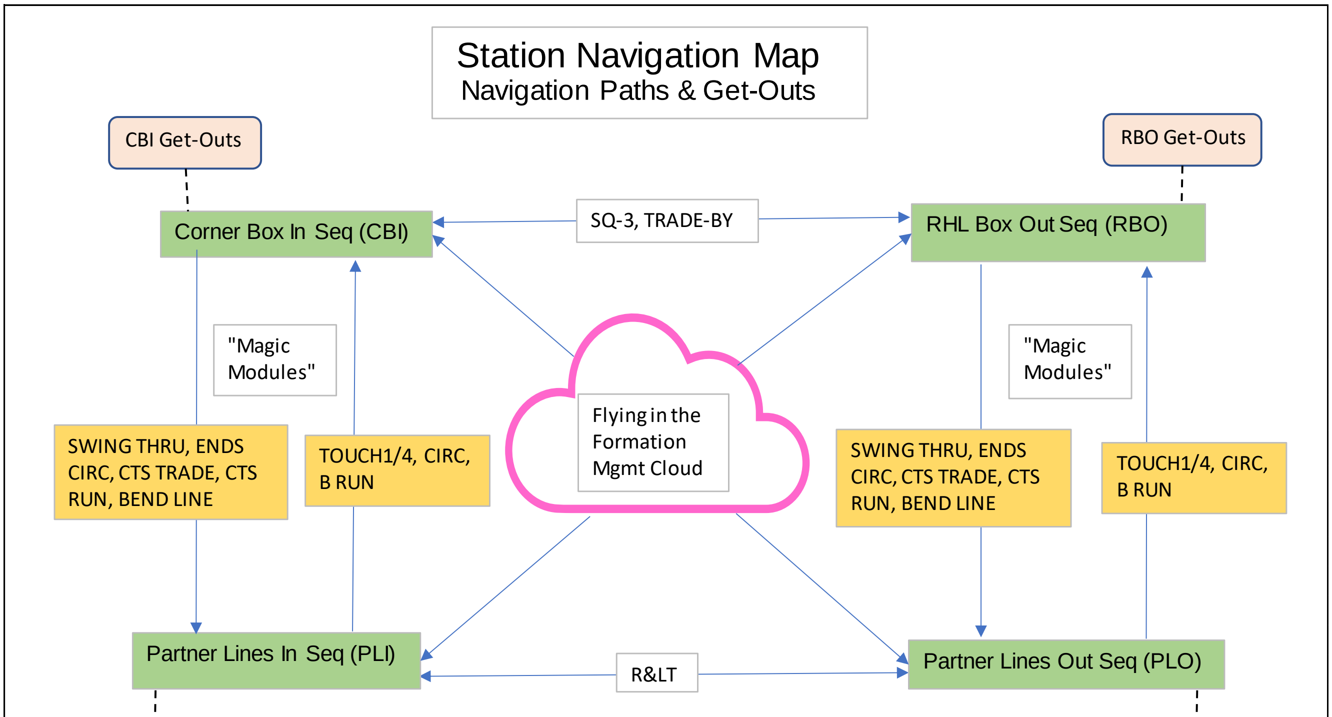



**Figure 2-2**

## Get-Outs Level 3: Navigate to Non-Landing Station & Resolve

Appendix A gives some get-outs for non-landing stations. While we used the map to navigate to another landing station in Level 2, we now extend that navigation to non-landing stations. But the non-landing stations are not on the map. How do we get there? This requires a discussion of neighborhoods first. Then we will come back to the map.

## Station Neighborhoods

A neighborhood is the set of stations which share the same relationship attribute from FASR. In other words, all stations related to partner (PLI, PLO, PBI, PBO) are in the same neighborhood. There are four neighborhoods, each named for the relationship attribute: partner, corner, RHL, and opposite. Figure 2-3 shows the corner neighborhood.

Neighborhoods are a helpful concept for calling. The navigation within a neighborhood is simple: SLIDE-T, R&LT or their equivalents. The landing station (CBI) is shown in green while the others are in pink.

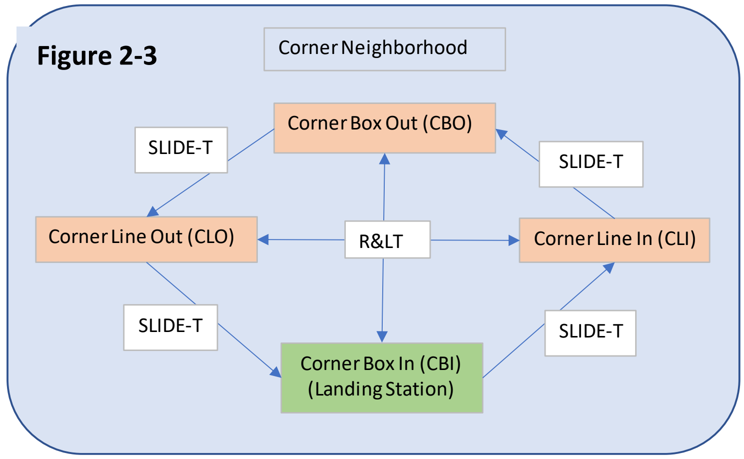



**Figure 2-3**

Neighborhoods allow us to broaden our get-outs beyond the landing stations. Suppose we want to use a get-out connected to the Corner Line OUT (CLO) station but landed in Partner Lines IN (PLI). To navigate to CLO we would first use the main navigation map to get to CBI which is the entry point to this neighborhood. Then using this neighborhood map we call R&LT to navigate to CBO and SLIDE-T to arrive at CLO where we can then use a CLO get-out.

A useful fact is that all dancers have their corner in the same box (whether in box or line formation) in the corner neighborhood. Neighborhoods are a great context for isolated sight calling. Isolated sight calling is extemporaneous calling within a two couple box (See Ref 1, p 67 for more information). The RHL neighborhood box looks identical to this except that all boys are in the same box with the RHL.

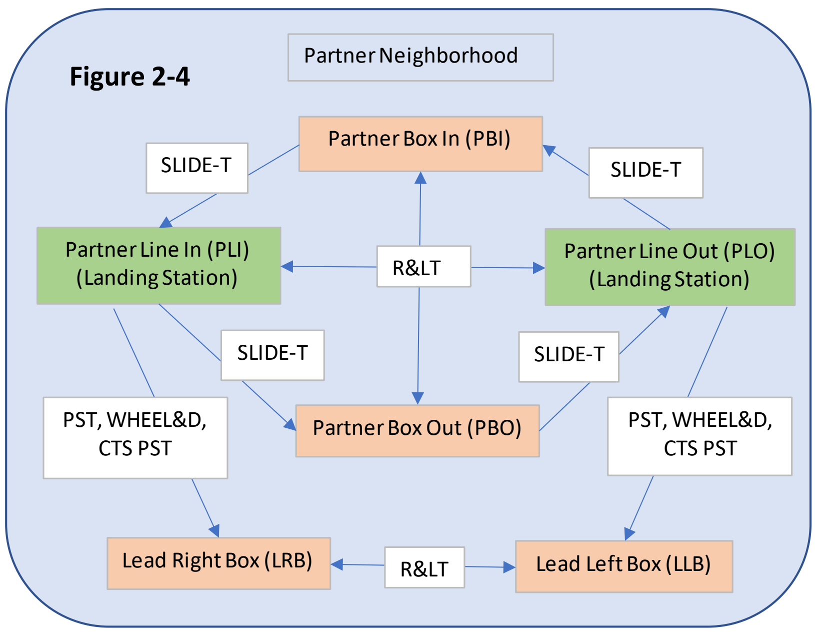
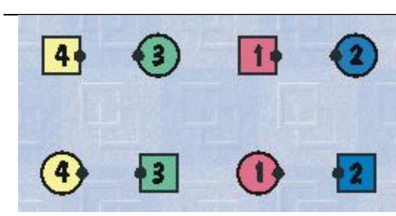


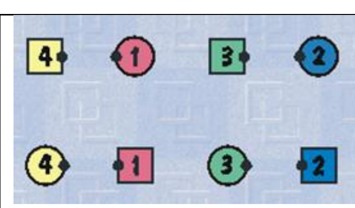

**Figure 2-4**

The partner neighborhood (figure 2-4) is similar but has two additional stations. This neighborhood includes the lead left box (LLB) and lead right box (LRB) even though the word "partner" is not in the station name. But they qualify because everyone is in the same box with their partner.

The square snapshot of the (heads) lead right and (heads) lead left boxes are on the right. It makes no difference whether the heads or sides are activated. From a setup point-of-view they are identical.



Heads Lead Right Box



Heads Lead Left Box

Now we integrate the Navigation Map with landing stations together with the neighborhood navigation in this section.  Note that the green landing station boxes appear in both diagrams.  They become the entry and exit points for the neighborhoods.  Figure 2-5 shows the Station Navigation Map in all its glory with the blue neighborhood stations incorporated.  Notice that there is a nice “back door” between the Corner and RHL neighborhoods shown as PST, TRADE-BY.

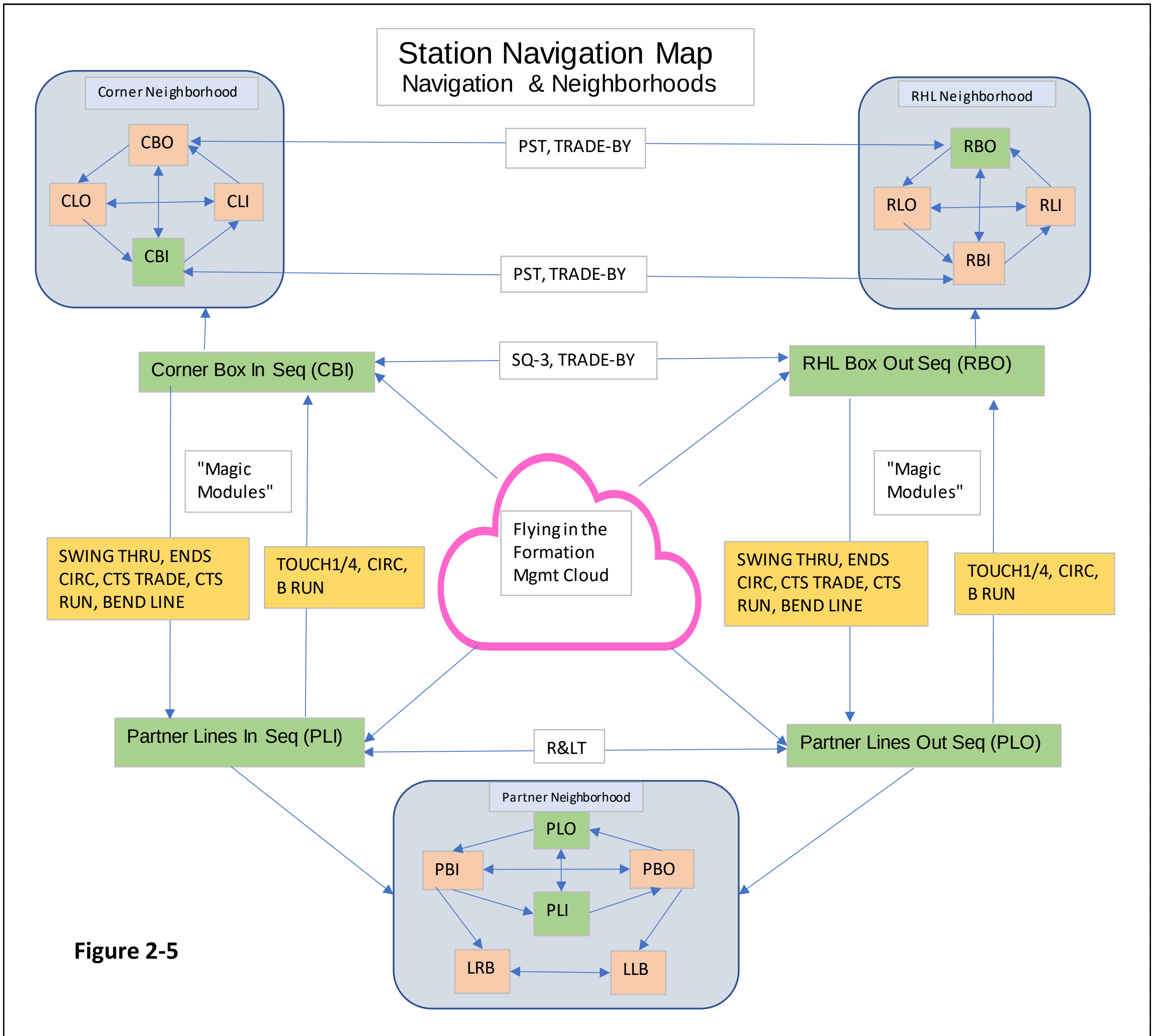



**Figure 2-5**

Return to Get-Outs Level 3

At level 3 we can navigate to any station shown on the map and use a get-out there. Assume we have decided to use the RLI get-out R&LT, DXY ~, G CIRC TWICE WHILE B SCTBK, LA to impress a caller visiting our dance.

| | |
|---|---|
| Assume we landed in CBI after formation management. We need to be at RLI. From the map the quickest navigation is the "back door" between neighborhoods. | [CBI] PST, TRADE-BY [RBI] |
| Now a SLIDE-T puts us at the target station, but we will use an equivalent with a SCTBK to foreshadow the boys SCTBK in the get-out. | [RBI] TOUCH1/4, SCTBK, B RUN [RLI] |
| We have arrived at the target station. Call the get-out. | R&LT, DXY ~, G CIRC TWICE WHILE B SCTBK, LA |

Chapter 2 Recap

The stated purpose of this chapter was to create a Station Navigation Map. We began with the key point that stations provide a home for get-outs. We then developed the map incrementally as we tied it to increasingly mature navigation and get-out skills:

1) Level 1: Use the get-out in the landing station.
2) Level 2: Navigate to a different landing station and use a get-out there.
3) Level 3: Navigate to a non-landing station and use a get-out there.

The discussion at level 3 included the introduction of station neighborhoods (sharing the same relationship attribute) with access to those neighborhoods coming via the landing stations. The final version of the Station Navigation Map (figure 2.5) incorporated all these navigation paths.

# Chapter 3: Getting Started Using Get-Outs

Recommendations for get-out start-up:

1) Use only the four landing stations shown in the Station Navigation Map.
2) Initially find 10 – 12 get-outs covering the four stations and put them into a table like the one in Appendix A.
3) Memorize these get-outs. Practice calling these while visualizing the station setup.
4) After partner pairing, use a get-out on the station you land on without navigating to another station.
5) If you have trouble remembering to use the get-outs, make a list before the dance of at least one get-out for each station. Before each tip review the get-outs from the list you have not used yet.
6) Don't expect instant success. Each time you use a get-out, it will become easier to use it again. It is the first use that can be hard to remember.

Where to Find Get-Outs

The following paper from Callerlab knowledge base has many get-outs (Chapter 14) in addition to material on site resolution

http://callerlabknowledge.org/?p=417

Vic Ceder has many get-outs in his on-line choreography:

https://www.ceder.net/choreodb/by_level.php?levelind=20

When you find get-outs and other modules from a public source be grateful but be careful. Verify that the figure works as it should and evaluate the flow. Get-outs must be done from memory to be done well. There is just too much going on to read thru a get-out which is unfamiliar. Be intimate with your get-outs before going public.

How to Write a Good Get-Out

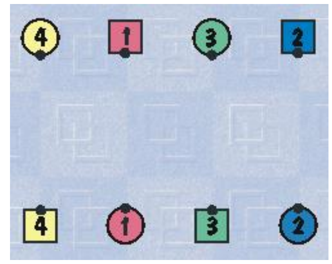
A good get-out must start with a good idea. I have seen lists of 25 ways to find your corner without a single good idea among them.

The following examples show how to develop a get-out from a good idea.


**Example 3-1**: The get-out idea is TOUCH1/4, SPLIT CIRC 1+1/2, G HINGE & RUN LEFT, LA. Using our dolls, we work backwards through this sequence until we have facing couples as shown here. Next we identify the nearest station. This setup happens to be a station in the corner neighborhood – CBO. We can attach this get-out to CBO. However, we have a preference to attach get-outs to landing stations. From CBI we can get to this station using SQ-THRU BUT ON THE $3^{RD}$ HAND (TOUCH1/4). Here is the result. The "[CBO]" notes that we pass through the CBO station during this get-out.

| | |
|---|---|
| CBI | SQ-ON-3 [CBO], TOUCH1/4, SPLIT CIRC 1+1/2, G HINGE & RUN LEFT, LA |

**Example 3-2**: The get-out idea is DXY~, (R) SWING-T, G XFOLD, R&LG. Using our dolls, we work backwards through this sequence until we have facing couples as shown here. Next we identify the nearest station. Since the idea begins with DIXIE STYLE, we must be aware of the flow considerations. The quickest way here from a station is SIDES LEAD R (LRB), SLIDE-T. But this is bad flow into the DIXIE STYLE. A better flow is HEADS LEAD L (LLB), SLIDE-T, R&LT. Here is the result.




| | |
|---|---|
| LLB | SLIDE-T, R&LT, DXY~, SWING-T, G XFOLD, R&LG |

The LLB is a station in the partner neighborhood. We prefer starting from a landing station. We can also get to the setup shown above from partner lines IN sequence (PLI) using R&LT, LADIES CHAIN. A second choice from PLI is PST, PARTNER TRADE, REV-FLUTTER. The flow works well for either, but the REV-FLUTTER is more interesting, so we will use that choice. Here is the result.

| | |
|---|---|
| PLI | PST, P TRADE, REV-FLUT, DXY~, SWING-T, G XFOLD, R&LG |

The get-outs from these examples have been added to the get-out table in Appendix A.

Where Do the Ideas Come From?

The references above are a great source for ideas. You may not like a get-out exactly as written, but it will spark an idea on how to change it.

Another great source of ideas comes from attending other caller's dances. No matter the level, I always come away with an idea sparked by something that was called. If a caller uses a get-out that you like, then start using it. You may change the setup to your liking. As soon as we call a figure in public, it is in the public domain and others are free to use it. However, if you use that get-out in a paper or in a teaching setting, it is only right to give credit for where it came from. See the get-out in Appendix A that I got from Frank Lane.

If you are sitting back contemplating your navel, here are some suggestions to coax new ideas out of your brain:

- Focus on a theme such as a call and brainstorm ideas for get-outs. Don't finish the get-out right away. Just write down ideas. Then take the best ideas and finish the get-out. Appendix A has some get-outs that came from me thinking about SCOOT BACK. The idea in example 4-2 above came from thinking about CROSS-FOLD.
- Consider a less-common formation and try to build a quick get-out from there. Inverted lines, 3X1 lines, tidal two-faced lines, facing diamonds are some examples that come to mind.

What to Work On Next

The beginning of this chapter suggested a simple way to get started. This section has suggestions for the next step when you are ready for a challenge.

The skills for using get-outs have three dimensions:

1) The skill of navigating between stations.

2) The number of get-outs memorized for each station.

3) The number of stations which have get-outs listed (landing & non-landing).

Growth after the first step can lead in three directions:

1) Improved navigation: Practice calling navigation modules by visualizing the different stations as you move between them. Select a target get-out before each tip and force yourself to use it. This will generally require navigation from the landing station to the station of the target get-out. Chapter 2 spelled out extended navigation as level 1, level 2, and level 3.
2) More Get-Outs: Add more get-outs for the existing stations and put them into practice. Try to incorporate more variety into the get-outs for each station by thinking of less common ways to resolve from there. Use the ideas above to write your own get-outs.
3) Add New Landing Stations: Expand the number of landing stations to include Lead Left Box (LLB) and Lead Right Box (LRB) which are both easily recognizable when landing the plane. Then add some get-outs for these stations.

This chapter described an approach for getting started using get-outs. Callers who do not use get-outs must navigate to the corner each time, frequently resulting in figures ending with PASS THRU, LA or SQ-3, LA. That is the least work for callers and the least interesting for dancers. Incorporating good get-outs takes some work, but it pays off when the dancers appreciate an interesting ending to a figure.

While this paper focuses on stations and get-outs, I am not advocating for the exclusive use of this method for resolving squares. It is one tool in the caller's bag of tricks. The only way we get better is to practice. This paper will raise awareness of interesting choreography through the get-outs which, in turn, will make callers better at extemporaneous navigation to resolution. There are many tools in that bag of tricks, but this paper is already too big trying to address one of them.

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## Chapter 4: Geographic Resolution

We normally do not care about the physical location of the couples during resolution. We can call LEFT ALLEMANDE to a corner box IN sequence without regard for the physical location because the PROMENADE will take them back to home. The word "geographic" in calling context means that we put the couples in a particular physical location on resolution – typically at home or a stirred bucket position. This requires additional skill and attention from the caller who must now remember the home position of the key couple. There is no difference in method between resolving to home or to the stirred position as the only difference is the geographic ending position which we will generically name the "figure home." The figure home is the original home position except when we stir the bucket when the figure home is one spot to the right.

There are two approaches for geographic resolution:

1) Sight call the couples into a target location.
2) Define a geographic station that is the starting place for a resolve-to-home (RTH) module.

The focus of this paper is about stations and modules. The first method is beyond the scope of this paper. The remainder of this chapter focuses on the second method. Ironically, when we describe how to put the station in a particular physical location, the method is the same as method 1.

Geographic Notation

Our station names, such as CBI, do not include geographic information. We need a method of specifying this information. This section is tedious but necessary. If you are a "skip the details – just give me the punchline" kind of person, then read the Geographic Notation Recap below and never look back.

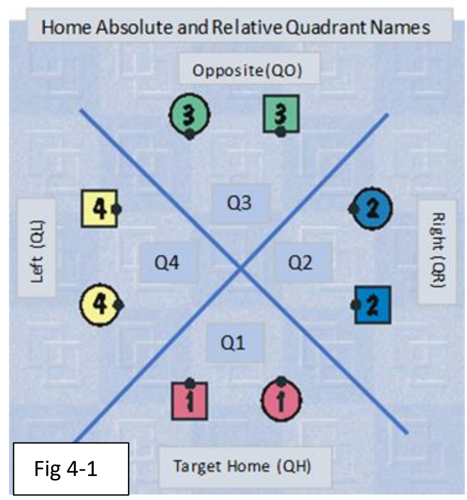


Fig 4-1

Figure 4-1 shows the four quadrants based on couples. The figure shows both absolute and relative quadrant names. The absolute quadrant is the couple number positions as shown in the center. For example, Q1 is the quadrant for the first couple. The quadrant relative to the figure home is shown around the outside. For example, QR (quadrant right) is shown in the couple 2 spot since it is to the right of the figure home. This is the view we have when resolving to home.

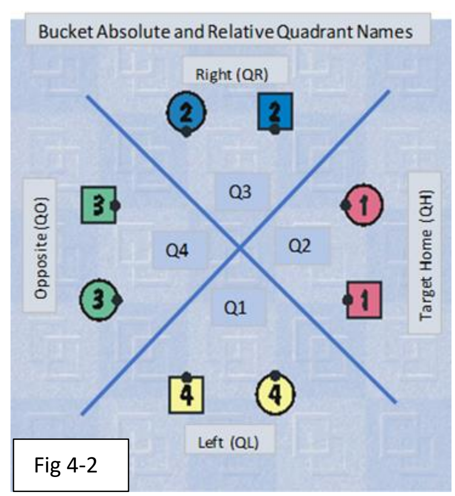


Fig 4-2

Figure 4-2 is our view when resolving to a stirred bucket position. The absolute quadrant names have not changed but the relative names have shifted. Assuming couple #1 is our key couple, Figure home Quadrant (QH) is now in the couple 2 spot (Q2). The relative quadrant names are from the perspective of the figure home making the right quadrant (QR) in the couple 3 spot.

The relative quadrant names are most important for us because the geographic location of the station is relative to the figure home. The familiar CBI station is in the opposite quadrant from the target home (QO) is a rich launching place for resolve-to-home (RTH) modules. Although there are other stations, we use that station for our examples below. When we add the geographic information to the station, the name becomes CBI-QO.

Figure 4-3 shows station CBI-QO ready for a resolve to original home. The "QO" shows that the corner box is in the opposite quadrant from the home position.

Figure 4-4 shows the same CBI-QO station for a stir the bucket resolution. The "QO" shows that the corner box is in the opposite quadrant from the figure home (#2 spot for the #1 couple).

This demonstrates how relative quadrants work.


Figure 4-3

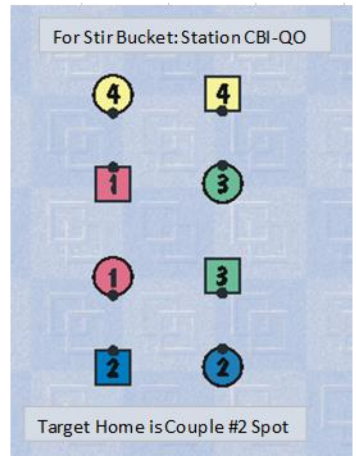



Figure 4-4

Geographic Notation Recap

The "Figure home" is where we want the key couple (#1) to be after resolution. Figure home is the original home for resolve-to-home and the next spot to the right for stir the bucket resolution. To use stations for resolve-to-home modules, they must have geographic information added to the regular FASR name. That information takes the form of a quadrant relative to the figure home: left (QL), opposite (QO), right (QR), or home quadrant (QH). One popular station for geographic resolution is the corner box in the opposite quadrant (CBI-QO).

Getting the Setup to the CBI-QO Station

The method we use to navigate to the CBI-QO station is the same method we use to navigate directly to the figure home. So why use the station? The answer is the same reason we use the station for get-outs: Most of us can deliver a much better quality resolution from a station than by direct navigation.

The procedure is written for a resolve-to-home figure coming out of formation management. The procedure consists of the following steps:

1) We need one couple to be paired with their partner but not the other. If both couples are paired with partners, then use any call that has two dancers crossing the center (such as ENDS CIRCULATE or COLUMN CIRCULATE). Then pair the easiest couple and the other will not be paired.
2) Move the paired couple first. We want to navigate the paired couple into the opposite quadrant from the home position. This is the station location.
3) Navigate to a line or two-faced line setup where the paired couple is facing the station location.
4) Use PASS THRU, WHEEL&DEAL or FERRIS WHEEL to get the paired couple in the station position. We may need to use a ZOOM to get them to the outside. The paired couple is now in the proper spot for the CBI-QO station.

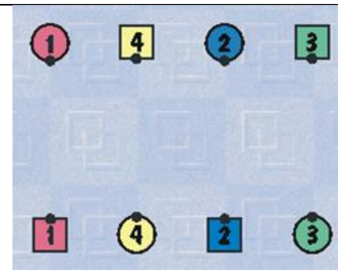
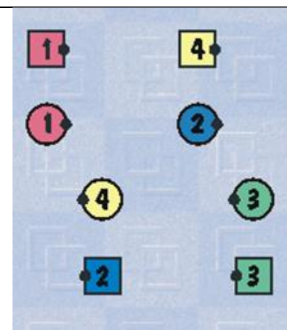
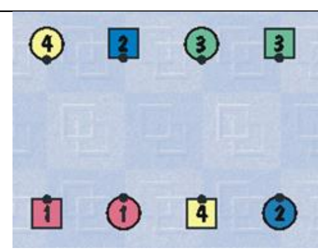
5) Finish navigating to the CBI-QO station by moving the center dancers to their corner. Since the outsides are in the right geographic spot, the centers will also be there when they are facing corners.

Appendix B is a table of resolve-to-home modules from the CBI-QO station. Once the square is at the CBI-QO station, the hard work is over. Pick a module from Appendix B and call it.

If we had wanted a stir the bucket, the procedure is identical but the station location would be in the opposite quadrant from the stirred position (one position left from original home).

**Example 4-1 - Resolve-to-home**

This example is contrived to have everything turn out wrong which results in a long sequence.

| | | |
|---|---|---|
| Here is the square at the end of formation management. We want to move to the CBI-QO station and resolve to home. | |  |
| We SLIDE-T to pair the primary couple and see that all couples are paired with partner. | SLIDE-T |  |
| We must call something where only two dancers cross the center to get only one couple paired. The A/D accomplishes that.<br><br>Now the heads are paired. The station location is in the opposite quadrant from home (#3 position). | R&LT, VEER L, A/D |  |
| A FERRIS WHEEL would put heads together in a side position but we want them in a head position so we BEND=.<br><br>Couple #1 needs to be facing the #3 spot so we call R&LT. | BEND=,<br><br>R&LT |  |

| | | |
|---|---|---|
| Now we move the couple #1 to the #3 spot and note that a CTS PST will finally get to the CBI-QO station.<br><br>It has taken 9 calls (an eternity) to get here so we need a fast resolution from Appendix B. | PST, WHEEL&D,<br><br>CTS PST,<br><br>8-CHAIN-3+1/2, B C-TURN PARTNER @HOME. |  |

Sight callers are opportunists. Sometimes we see something on the fly and take advantage of it. In the second square snapshot in this example, most of us can see a quick resolution to home: VEER LEFT, FERRIS WHEEL & CTS SWEEP TO HOME. But the point here is to demonstrate a procedure. In general, if you see an opportunity, take advantage of it. Some of the spontaneous results are surprisingly good.

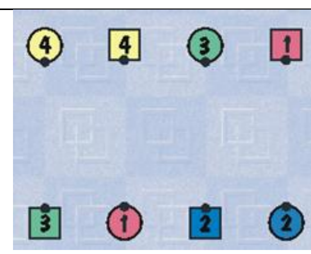
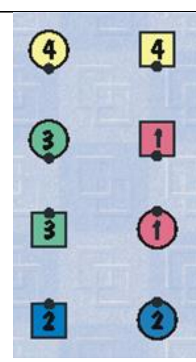
<u>Navigate to the CBI-QO Station from Static Square</u>

Resolve-to-home always follows a formation management phase. Stir the bucket resolution may follow a formation management phase or we may start a figure with the sole purpose of effecting a stir the bucket. In that case we have no formation management phase, but rather can navigate directly to our CBI-QO station which is much easier. The following procedure handles navigation to the CBI-QO station from a static square.

The procedure is as follows:

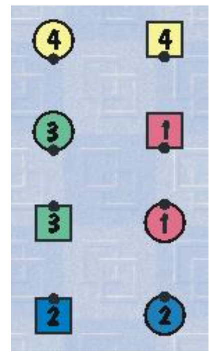
- Go to either the RHL or corner neighborhood.
- Effect a LADIES CHAIN. Effecting a LADIES CHAIN means any call which causes the girls to trade places such as WALK&DODGE, SPLIT CIRC, or FLUTTERWHEEL. The purpose of effecting that chain is that it allows us to easily navigate to the station location using WHEEL&D
- Sight navigate to the CBI-QO station. For stir the bucket, this is one place to the left of original home.
- Use a resolve-to-home module from Appendix B.

**Example 4-2 – Navigation to station (CBI-QO) from a static square for stir the bucket**

| | | |
|---|---|---|
| We use a less common get-in module.<br><br>Cpl 4 is not facing toward the station location. Add a R&LT. | H L-SQ-2, L-TOUCH1/4, WALK&DODGE, WHEEL@,<br><br>R&LT |  |
| Navigate the sides to their station location.<br><br>Sides are on the outside where we need them with heads facing in center. We could have CTS SQ-3 but the better flow is WHEEL@.<br><br>The square is now at the station CBI-QO. | PASS THRU, WHEEL&DEAL,<br><br>CTS WHEEL@ | <br>Setup after WHEEL&D |

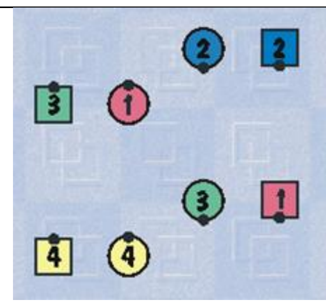
| | | |
|---|---|---|
| Select a module from Appendix B | TOUCH1/4, FOLLOW N&SPD,<br>8 CIRC 1+1/2, MEET PARTNER,<br>SLIDE-T , BOW TO P | |

Introducing a New Setup for Resolve-To-Home Modules



Another good setup for resolve-to-home is the double pass thru setup resulting from having CTS WHEEL@ from CBI (snapshot on right). We really need a name for this setup, but all stations identified in CRaMs are facing couples. We will not call this a station but will use the same naming convention. The name is CDO - Corner neighborhood, beginning Double pass thru formation, all OUT of sequence. However, the name obscures how closely this is related to the corner box. CDO must also be in the opposite quadrant from the figure home. Appendix B shows resolve-to=home modules from this station. Navigating to this setup is practically the same as navigating to the CBI-QO station. In Example 6.2 above examine the second frame and see that the square was in this CDO-QO setup before we had the centers WHEEL@. The example below uses CDO-QO setup for a stir the bucket.

**Example 4-3: Navigation to station (CDO-QO) from a static square for stir the bucket**

| | | |
|---|---|---|
| We use a less common get-in module. | H BOX-GNAT, SQ-2, TOUCH1/4, SPLIT CIRC, B RUN |  |
| Couple 4 is facing in the correct direction for navigating to the CDO-QO setup.<br><br>In the snapshot we see that a ZOOM will put the square at the CDO-QO setup. | FERRIS WHEEL,<br><br><br>ZOOM | <br>Setup after FERRIS WHEEL |
| Choose a resolve-to-home module from the table in Appendix B. | DBL PST, LEADERS CLOVER, OTHERS STEP FWD & P TRADE, BOW P | |

There are many methods and modules for geographic resolution. We have barely scratched the surface. This demonstration shows that extending the station/get-out method to geographic resolution is one way of managing good quality choreography.

## Chapter 5: Advanced Navigation

WARNING! WARNING! WARNING!

Be advised that you can have a long, successful calling career without ever reading this chapter!

The target audience for this chapter is MENSA and above.

Most callers are really smart. This could be you!

WARNING! WARNING! WARNING!

(The reviewers of this paper insisted on this disclaimer.)

### Introduction

Let me explain the problem I am trying to fix with this chapter. With a little inspection of the Station Navigation Map, we can see that most navigation is box-centric. The entry point for both the corner neighborhood and right-hand lady neighborhood is a box (CBI & RBO). In those neighborhood maps we can then navigate to line-based stations (CLI, CLO, RLI, RLO) using SLIDE THRU or equivalent. The "back door" path between corner and RHL neighborhoods is box navigation. Even partner lines frequently resolve from boxes: SLIDE-T, PASS THRU, LA or SLIDE-T, SQ-3, LA.

We need some navigation modules to get directly from one line to another line without using SLIDE-T or equivalent from a box. Without such navigation modules, we have little incentive for putting get-outs under line-based stations. Developing a line-centric navigation approach is the driving goal for this chapter.

Our national highway system provides a good analogy for square navigation. Think of the Station Navigation Map in chapter 2 as our national highways before Eisenhower began the Interstate highways. We could get where we needed to go, but the congestion through cities was slow and tedious. (Perhaps this is an analogy that only old people relate to.) The navigation introduced in this chapter is more like the Interstate highway system. It can be seen as an overlay connecting the same cities (stations) in a more direct, efficient route.

This chapter extends the ideas from Chapter 2 – Station Navigation Map, focusing on navigation methods. The idea of rotational modules will be introduced and then used to create new routes for navigating between stations. This new navigation method expands the access to line-based stations for get-outs and extends the use of existing get-outs. Keep in mind that this navigation supplements the navigation to the get-outs introduced in Chapter 2. It is used after landing the plane, not during Formation Management.

### Perspective

The relationship movements in this chapter are from the boy's perspective. Shifting the boys to the right one place is the same as shifting the girls to the left one place. We need to pick one perspective for consistency. For example, most experienced callers know that from lines IN sequence, calling TOUCH1/4, COORDINATE, BEND LINE physically moves the girls to the right one place. In this chapter we will think of it as moving the boys to the left one place. Women callers may want to recast the ideas in this chapter to show the girls perspective.

Core Ideas

This chapter depends on two different, but tightly related ideas:

- The Relationship attribute from FASR identifies the partner paring. In this chapter we are interested in only those relationships which are the same for both boys and girls: all have corners, all have partners, etc. This is true only when both boys and girls have the same sequence: all IN sequence or all OUT of sequence.
- A rotational module is a special case of a navigation module that moves the boys clockwise (CW) or counter clockwise (CCW). The rotation direction is a property of the module.
- A rotational module causes a shift (R-shift) on the relationship attribute. The direction of the shift depends on the sequence of the lines. This is examined in detail below.

Basic Idea of Relationship Shift

This section looks at the effect of rotational modules on the relationship property of FASR. The direction of a relationship shift is from the perspective of a static square. From home shifting the boys to the right results in all having RHL. From home shifting the boys left results in all having corners.

Figure 5-1 shows partner lines IN sequence (PLI) station. A rotational module that moves the boys one place CCW results in figure 5-2. The new station is RLI, an R-shift to the right. Note that no FASR attribute has changed except the Relationship.

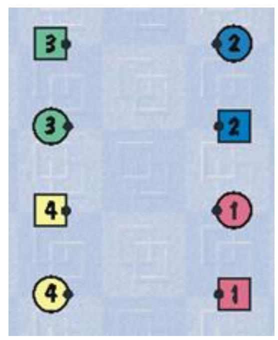


Figure 5-1 – Station PLI

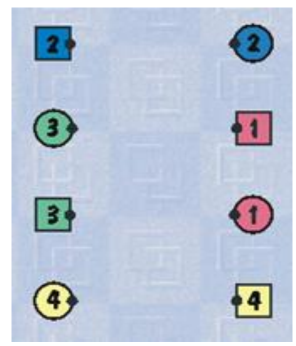


Figure 5-2 – Station RLI

Figure 5-3 shows partner lines OUT of sequence (PLO). If we use the same rotational module that moves boys one place CCW, the result is shown in figure 5-4. The new station is CLO, an R-shift to the left. Note that no FASR attribute has changed except the Relationship.

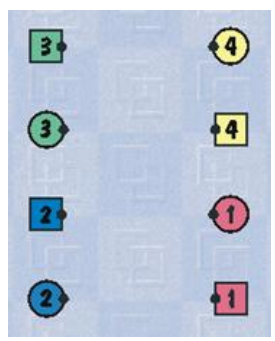


Fig 5-3 – Station PLO

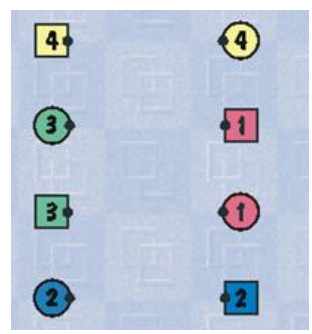


Fig 5-4 – Station CLO

To recap how an R-shift module works: If a module rotates the boys CCW, an IN sequence line gets an R-Shift right, while an OUT of sequence line gets an R-Shift left. If the module rotates the boys CW, then all is reversed. These results are summarized in the table below.

| **Module Rotation** | **R-Shift IN Seq** | **R-Shift OUT of Seq** |
|---|---|---|
| CW | Left | Right |
| CCW | Right | Left |

Understanding this interaction between rotational modules and the Relationship attribute is critical to understanding the rest of this chapter.

Rotational Modules

Rotational modules must meet the following requirements:

1) Module starts and ends in lines.
2) The only FASR property that changes is the Relationship which results in shifting boys CCW or CW. This requirement greatly helps mental setup tracking by limiting the change to relationship only.
3) Physical location may be changed.
4) We prefer that modules should not end in a box, finishing with a SLIDE-T to return to lines. Such modules should also give us a variation that avoids the box. Eventually we will come back to discuss some benefits of the box ending, but the point of this chapter is avoiding boxes.

This table shows some rotational modules. Feel free to invent your own. Some have multiple versions to give some variety or to avoid ending in a box. This table can also be found in Appendix C.

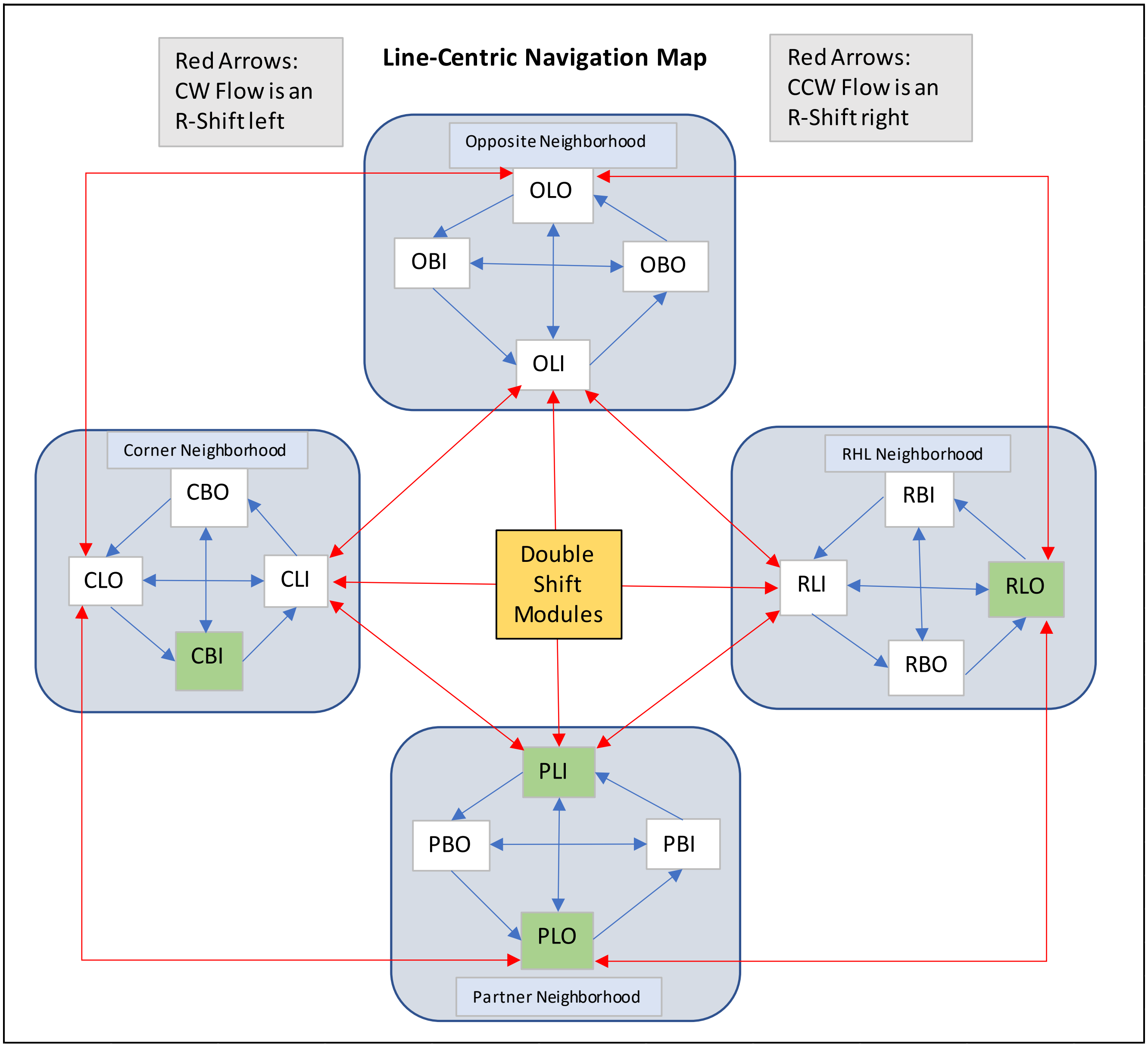
| **R-Shift Navigation Module Table** | **Module Rotation** | **R-Shift IN Seq** | **R-Shift OUT Seq** |
|---|---|---|---|
| 1a-TOUCH1/4, CIRCULATE, BOYS RUN, SLIDE-T<br><br>1b-TOUCH1/4, CIRCULATE, HINGE, G TRADE, RECYCLE | CW | Shift Left | Shift Right |
| 2-TOUCH1/4, COORDINATE, BEND LINE | CW | Shift Left | Shift Right |
| 3-PS~, SP-CH-T, ENDS CIRC DBL, SP-TOP, RECYCLE | CW | Shift Left | Shift Right |
| 4a-PS~, A/D, RECYCLE, SLIDE-T<br><br>4b-PS~, A/D, HINGE, SPLIT CIRC, B RUN<br><br>4c-PS~, A/D, SWING-T, B RUN, BEND LINE<br><br>4d-PS~, B CIRC, LINEAR CYCLE | CCW | Shift Right | Shift Left |
| 5-B EXTEND & SWING-T, B BKUP TO A LINE | CCW | Shift Right | Shift Left |
| 6-PS~, 8 CIRC, LINEAR CYCLE (or RECYCLE & SWEEP) | | Dbl Shift | |
| 7-SP-CH-T, G TURN BACK & CIRC ONCE, BEND=<br>(Use CPLS CIRC, BEND= if you prefer that flow) | | Dbl Shift | |

Rotational modules are not original with this paper. Bill Peters “magic modules” are rotational modules, but they change formation as well as relationship. Module 1 in the table is a “magic module.” While their use historically is specifically to move between stations CBI and PLI, their use in this paper is much broader, facilitating navigation between many stations.

The double shift modules move us across the street to the opposite line and same sequence. For example, station CBI changes to RBI and PBO changes to OBO.

Line-Centric Navigation Map

We expect this beautiful navigation map to look very different from the chapter 2 map because lines, not boxes, are the entry point to each neighborhood resulting in a new type of traffic flow. The Double Shift Modules work for OUT of sequence lines as well as IN sequence, but the map would get ugly to show them.




This map includes the Opposite Neighborhood. The Opposite Neighborhood is less popular for get-outs by most callers. Red arrows show the navigation paths using rotational navigation modules. Note that the outside loop of red arrows connects the various OUT of sequence lines while the inside loop connects the various IN sequence lines. Moving CW on a red arrow results in an R-Shift left. Moving CCW results in an R-Shift right. Once in a neighborhood, we can navigate to a box using SLIDE THRU. This is exactly the opposite from the box-centric approach in the Station Navigation Map. The green stations are the landing stations from the Navigation Map in chapter 2. Working through the terminology and concepts has been tedious, but now the fun begins with some examples of navigating this map, with each example focusing on a different aspect of navigation.

**Example 5-1: Alternate Entry Points for Get-Outs**

Consider the following get-out from the table in Appendix A:

[CBI] SLIDE-T [CLI], PST, TAG=, CLOVER, R&LG

The get-out shows in brackets [] that we can start this get-out from station CLI if we could only get there without using SLIDE-T. Although CBI is the starting station for this get-out, CLI is an alternate entry point. The example below shows that we now have a solution to the problem.

Partner lines (PLI & PLO) are an excellent starting place because they are landing stations from the Station Navigation Map.

| | |
|---|---|
| Starting in PLI, we need an R-Shift left to navigate to CLI. In the module table above, we look for a module to shift left from IN sequence lines. Module 1a fits the bill. | [PLI] TOUCH1/4, CIRCULATE, HINGE, G TRADE, RECYCLE [CLI] |
| We made it to CLI without using SLIDE-T. Now we use our get-out beginning from the alternate entry point. The resolution was completed without going through a box. | PST, TAG=, CLOVER, R&LG |

**Example 5-2: Matching the Flow from the Module to the Get-Out**

We want to use the following get-out from RBO: TOUCH1/4, SCTBK, B RUN **[RLO]**, REV-FLUT & SWEEP, CTS WHEEL@, CTS PST, LA <u>by coming in at the alternate entry point RLO</u>. We are again starting from PLI. Since the get-out begins with REV-FLUT, we must be careful to match the flow from the navigation module into the get-out.

| | |
|---|---|
| Checking the map, we have two choices for moving from PLI to RLO. One is on the inside loop and one on the outside loop. We will take the outside loop. First step is to work inside the neighborhood to CLO. | [PLI] R&LT [PLO] |
| Now we pick a module which will give us a right shift from an OUT of sequence line. In addition, the flow needs to work well into the REV-FLUT in the get-out. We choose module #2. | [PLO] TOUCH1/4, COORDINATE, BEND LINE [RLO]<br><br>(Note: If we had anticipated this module, we could have started with SQ-ON-3, TOUCH1/4) |
| Now we call the get-out starting from the RLO entry point. Notice the flow from BEND LINE into REV-FLUT is good. | REV-FLUT & SWEEP, CTS WHEEL@, CTS PST, LA |
| | |
| How would this change if we had chosen the inside loop for navigation? We need a right shift from an IN sequence line. We choose module 4b. | [PLI] PS~, A/D, SWING-T, B RUN, BEND LINE, [RLI] |
| Now we must navigate in the RHL neighborhood from RLI to RLO. This would normally be a R&LT, but the flow doesn't work going into the REV-FLUTTER. We must us an equivalent with better flow. | [RLI] PST, P TRADE, [RLO] |
| Now we call the get-out starting from the RLO entry point. Notice that using a different navigation route gave a totally different figure for the same get-out. | REV-FLUT & SWEEP, CTS WHEEL@, CTS PST, LA |

**Example 5-3: Using a Get-Out from a Non-Landing Station**

Before this example, all get-outs have been connected to a landing station per the guidance in Chapter 3. In advanced navigation, we associate get-outs with a non-landing station (RLI) and navigate there. The second table in Appendix A shows get-outs for non-landing stations.

| | |
|---|---|
| In this example we start from PLI and move to RLI for the get-out. From the module table we need to shift right from IN sequence lines. Use module 4b. | [PLI] PS~, A/D, HINGE, SPLIT CIRC, B RUN [RLI] |
| Now we choose a get-out for the RLI station from Appendix A. No boxes were harmed in the completion of this resolution. | SQ-4, LOOK FOR PARTNER, WRONG WAY R&LG, MEET PARTNER & B RUN, PROM |

Switching Between the Two Maps

Most of the stations are on both maps, but the routes are different. These stations can be transition points between the two maps. From our highway analogy think of this transition as the on-ramps and off-ramps for interstate highways. However, some small towns do not have access ramps to the interstate. Note that stations LLB and LRB are not access stations to the Line-Centric Map because the boys and girls have different sequences. If we are on a line-based station on the Station Navigation Map, we can switch to the Line-Centric Map and continue. Conversely, if we are on a box-based station on the Line-Centric Map, we can switch to the Station Navigation Map and continue. This is the on/off ramp analogy.

**Example 5-4: Starting from RLI**

Previous examples have started from partner lines which are landing stations. To start from other lines, use neighborhood navigation to get from a landing box to the desired lines, then shift to the Line-Centric Map. For example, starting from the landing station RBO move to RLO using SLIDE-T. Then PASS THRU, BEND LINE to end at RLI. Then begin Line-Centric navigation from there.

| | |
|---|---|
| Start at RBO and navigate to RLI (Chapter 2 Map) | [RBO] SLIDE-T, PST, BEND= [RLI] |
| (Chapter 7 Map) Let's move to partner lines IN (PLI). We need a module that shifts left from IN sequence lines. From the module table we pick #7 | [RLI] PS~, SP-CH-T, ENDS CIRC DBL, SP-TOP, RECYCLE [PLI] |
| Then we choose a PLI get-out from Appendix A. Flow works nicely. | CTS SQ-4, ENDS LA, ALL R&LG |

**Example 5-5: Using Double Shift Modules**

The double shift modules in the center of the map are hard to miss. Here is the contrived scenario: We are working on the SCOOT BACK theme and want to use the CLO get-out PS~, SCTBK, EXT, R&LG. After landing the plane, we find ourselves at landing station RBO.

| | |
|---|---|
| Normally we would use SLIDE-T to get to station RLO but we know both double shift modules start with PS~. That is not great flow so we use a SLIDE-T equivalent to help the flow. | [RBO] TOUCH1/4, SCTBK, B RUN [RLO] |
| We need a module to double shift across the street to CLO. We pick module #7. | [RLO] PS~, SP-CH-T, G TURN BACK & CIRC ONCE, BEND= [CLO] |
| Now we call the CLO get-out using SCOOT BACK | PS~, SCTBK, EXT, R&LG |

If we had been using the Station Navigation Map from chapter 2 exclusively, what would the navigation from RLO to CLO look like? SQ-2, TRADE-BY, SLIDE-T, R&LT This is not terrible but certainly not as interesting.

These five examples started in lines and moved to resolution without using any boxes. This created a different traffic pattern. Dancers will sense something different, but they won't know what. Dancers will not anticipate the get-outs because they are so familiar with get-outs coming from boxes.

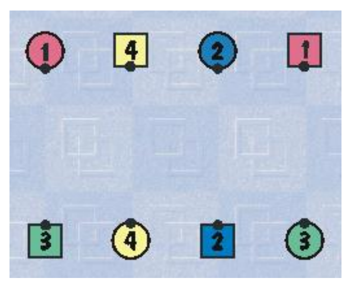
**Example 5-6: Moving Back to Boxes**

Modules 1a and 4a moved back to lines at the end by doing a SLIDE-T from a box. Module 2 used a BEND= at the end to return to facing lines from a two-faced line. Once we are comfortable with moving from lines to lines, we can add some flexibility by leaving off that final SLIDE-T leaving us in the box just short of the ending lines. This allows us to use box get-outs or two-faced lines get-outs from within the line-centric navigation.

| | |
|---|---|
| Starting from PLO we want to move to the RHL neighborhood. From the map we will move up and take the inner loop to RLI. | [PLO] R&LT [PLI] |
| We need a module to shift right from IN sequence lines. Pick module 4a but leave off the final SLIDE-T. That leaves us in a box RBI. | [PLI] PS~, A/D, RECYCLE [RBI] |
| Now choose a get-out for RBI from Appendix A. The get-out table does not have an RBI get-out, but the first row is an RBO get-out with an RBI alternate access point, so we use it. | [RBI] TOUCH1/4, FOLLOW-N, 8 CIRC, LA |

<u>How to Track the Station Changes</u>

We sight callers don't like having to track these station changes mentally. That is why we are not modular callers. Note from the examples that these navigation and resolution sequences are really short. Most examples have only one station change that must be followed; a few have two. I will describe how I track these. I don't claim it is the best approach – only that it works for me (and I have a bad memory).




When I hit the landing station, I shift from sight calling to mental image and station names. For example, assume my landing station is partner lines OUT [PLO]. I now move to the line-centric map and call a module – TOUCH1/4, COORDINATE. Since lines were OUT, I know the result is a right shift to RLO. At this point I visualize the square in their geographic RLO setup (see figure) in my head no matter the actual physical location. If I need some minor navigation in the neighborhood such as R&LT, I used mental image. But the get-out is coming within a call or two so this mental image is short-lived. I can imagine successful use of isolated sight calling in the neighborhood, but I don't normally use it.

Chapter Review

This is a mentally challenging chapter. We began with the goal of developing an alternative to box-centric navigation in order to give quick access to line-based stations and provide variety to dancers. This led to a tutorial on rotational navigation modules which became the highways between neighborhoods in the Line-Centric Navigation Map. We then used the map to work through six examples.

The benefit of this navigation:

1) access to get-outs from more stations.
2) more efficient and interesting navigation between stations than in the Station Navigation Map.
3) ability to use get-outs without being anticipated by the dancers.
4) inspires new traffic patterns.

**References with Annotations**

Callerlab Sight and Module Resolution Systems, February 2018, http://www.callerlab.org/Portals/1/SightResolution-Revised-18B.pdf

This is an extremely useful 200-page reference book on sight calling, modular calling, modules, and everything else written by a variety of callers and compiled by Callerlab. The naming is inconsistent across the different authors but that is minor compared with the value of this work.

"Callarama" square animation software, Reinhold Roedig, http://www.callarama.com/

All the square diagrams were produced using Callarama. Thanks to Reinhold Roedig for allowing me to include these diagrams in this paper.

Controlling Choreography with Relationships, Barry Clasper, 2014, http://callerlabknowledge.org/?p=847

This book includes extensive material on how to visually identify the relationship neighborhood during partner pairing. This is an excellent reference for callers who want to expand their landing stations to various lines.

**Square Dance Call Abbreviations**

B – Boys

G - Girls

R - Right

L - Left

P - Partner

T – Thru. As in PST (Pass Thru), SLIDE-T, SWING-T, SP-CH-T (Spin Chain Thru)

~ - Ocean Wave. As in PS~ (Pass the Ocean), DXY~ (Dixie Style to Wave), SC~ (Single Circle to Wave)

= - Line. As in TAG=, BEND=

@ - Around

A/D – Acey Deucey

C-TURN – Courtesy Turn

CO3/4 – CAST OFF ¾

RHL – Right Hand Lady

R&LT – RIGHT & LEFT THRU

R&LG – RIGHT & LEFT GRAND

SCTBK – SCOOT BACK

SQ-4 – SQUARE THRU 4

SQ-ON-3 – SQUARE THRU BUT ON THE 3RD HAND

WHEEL&D – WHEEL & DEAL

XFOLD – CROSS FOLD

XRUN – CROSS RUN

## Glossary

Activation – Figure lifecycle phase where the caller starts from a static square and gets the dancers moving.

Alternate Entry Point – A get-out that has brackets [] naming a different station which can use this get-out beginning at the designated point. The brackets name the alternate entry point for the get-out.

Equivalents – A group of calls that has the same effect as a single call.

FASR – Formation, Arrangement, Sequence, Relationship. The state of the square for resolution purposes. These properties are independent of the physical location of couples in the square.

Flow modules are smooth combinations of calls used during sight calling formation management. Only the formation and arrangement result are important.

Formation Management - The figure lifecycle phase where the square is manipulated extemporaneously with the caller tracking only formation and arrangement.

Geographic Information – Adds information about the physical location on the floor to the normal FASR properties.

Get-In module - Activates the dancers from a static square

Get-Out module - Resolves the square, ending at home. The final promenade may be implied. Get-out modules include ALLEMANDE LEFT, RIGHT & LEFT GRAND, get-out to home, and get-out to stirred bucket.

Landing Station – One of four easily recognizable stations for at the conclusion of partner pairing. These are Corner Box IN sequence (CBI), RHL Box OUT of sequence (RBO), Partner Line IN sequence (PLI), and Partner Lines OUT of sequence (PLO).

Line-Centric Navigation Map – A graphic of alternative traffic flow from the Station Navigation Map. This map uses lines rather than boxes for the entry point to neighborhoods.

Magic Modules – Two navigation modules original identified by Bill Peters to navigate between PLI and CBI.

Mental Image - the ability of callers to visualize the square and follow the setup changes mentally.

Module - a danceable sequence of calls with a purpose.

Navigation - purposefully moving the dancers from the current setup to a desired place.

Navigation modules - Modules used to navigate between different stations. Magic modules are an example of navigation modules.

Neighborhood - The set of stations which share the same relationship attribute from FASR. In other words, all stations related to partner (PLI, PLO, PBI, PBO) are in the same neighborhood. There are four neighborhoods, each named for the relationship attribute: partner, corner, RHL, and opposite.

Partner Pairing – Figure lifecycle phase where the caller identifies key dancers and puts them together as partners as required. The end point is a station with known setup. This is also called "Landing the Plane" based on a flying analogy.

Quadrant – The four couples in a static square define the four absolute quadrants. Quadrant is geographic information added to the regular FASR name. A relative quadrant is relative to the home position of the #1 (primary) couple: left (QL), opposite (QO), right (QR), or home quadrant (QH).

Relationship Shift (R-Shift) – The impact on the Relationship property of the square by a rotational module. R-Shift may be left or right based on the man's perspective from a static square.

Resolution – The figure lifecycle phase where the caller gets each dance back with partners in the home position.

Resolve-to-home module (RTH}

Rotational module - a special case of a navigation module that moves the boys clockwise (CW) or counter clockwise (CCW). The rotation direction is a property of the module. A rotational module causes a shift (R-shift) on the relationship attribute. The direction of the shift depends on the sequence of the lines.

Sequence – The counter clockwise couple numbers specified separately for boys and girls. 1234 is IN sequence. 1432 is OUT of sequence.

Setup – All of the FASR properties taken together.

Station – A setup that is useful enough to have a name. Station names take the form Relationship, Formation, Sequence. The arrangement is assumed to be normal. For example, Corner Box IN Sequence (CBI)

Station Navigation Map – A graphical view of commonly used routes as callers move to square resolution.

Technical Zero – A zero that only works with both boys and girls have the same sequence.

Zero – A module that returns to the starting setup at the end.

**Appendix A – Get-outs by Station**

The following tables of get-outs are organized by station and then alphabetically by get-out text. This is the best organization in our head because the question while calling is "What get-outs do I have for this station?" Also having get-outs together which have similar starting calls makes them easier to remember. For example three get-outs for CBI begin with SLIDE THRU. The first table contains land station get-outs while the second table has other station get-outs.

| Landing Station | Get-Out |
|---|---|
| RBO | SQ-ON-3 [RBI] TOUCH1/4, FOLLOW-N, 8 CIRC, LA |
| RBO | SWING-T, B RUN, CPLS CIRC, 1/2TAG, TRADE & ROLL, LA |
| RBO | TOUCH1/4, G TRADE, PST, WHEEL&D, CTS PST, LA |
| RBO | TOUCH1/4, SCTBK, B RUN [RLO], REV-FLUT & SWEEP, CTS WHEEL@, CTS PST, LA |
| CBI | R&LT [CBO], SC~, B XRUN, G TRADE, ALL (L) SCTBK, LA |
| CBI | SLIDE-T [CLI], PST, TAG=, CLOVER, R&LG |
| CBI | SLIDE-T [CLI], R&LT, DXY~, B SCTBK, LA |
| CBI | SQ-ON-3 [CBO], TOUCH1/4, SPLIT CIRC 1+1/2, G HINGE & RUN LEFT, LA |
| CBI | TOUCH1/4, B SCTBK WHILE G DODGE, LA |
| CBI | TOUCH1/4, SPLIT CIRC, BOYS RUN, R&LT, DIXIE STYLE HANG ONTO LEFT, LA |
| PLI | CTS SQ-4, ENDS LA, ALL R&LG |
| PLI | PST, P TRADE, REV-FLUT, DXY~, SWING-T, G XFOLD, R&LG |
| PLI | PST, TAG=, FACE R, G RUN, STEP AHEAD, LA (From Frank Lane) |
| PLI | R&LT, DXY~, B SCTBK, G CIRC, LA |
| PLO | PS~, SCTBK, R&LG |
| PLO | R&LT + ¼, G CAST ¾, FLIP DIA, R&LG |
| PLO | SLIDE-T [PBI], TOUCH1/4, FOLLOW-N, EXT, LA |
| PLO | SLIDE-T [PBI], TOUCH1/4, FOLLOW-N, (L) SCTBK, G RUN, PROM HOME |

| Other Station | Get-Out |
|---|---|
| RLI | R&LT, DXY ~, G CIRC TWICE WHILE B SCTBK, LA |
| RLI | SQ-4, LOOK FOR PARTNER, WRONG WAY R&LG, MEET PARTNER & B RUN, PROM |
| CBO | TOUCH1/4, SPLIT CIRC 1+1/2, G HINGE & RUN LEFT, LA |
| CLI | 1/2SAS, SQ-4, R&LG |
| CLO | PS~, SCTBK, EXT, R&LG |
| OLO | SLIDE-T, 8-CH-3, LA |
| LRB | SWING-T, TURN-T, LA |
| LLB | SLIDE-T, R&LT, DXY~, SWING-T, G XFOLD, R&LG |

Get-outs in orange were all developed around the SCOOT BACK theme.

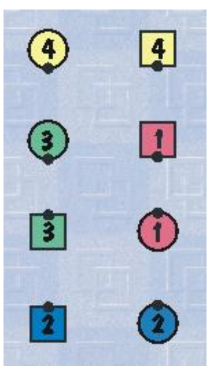
In practice I have a separate table for Mainstream and Plus, but they have been combined here.

Having the get-outs in a table is convenient for reviewing get-outs before a dance. The table should be reviewed periodically to remove dead wood – get-outs that you are not using.

**Appendix B: Resolve-to-Home Modules**

| Station | Resolve-to-Home Module |
|---|---|
| CBI-QO | 8-CHAIN-3+1/2, B C-TURN PARTNER @HOME<br>(I first saw this at a festival, but I don't remember the caller.) |
| CBI-QO | TOUCH1/4, FOLLOW N&SPD, 8 CIRC 1+1/2, MEET PARTNER, SLIDE-T, @Home |
| CBI-QO | SLIDE-T, PST, P TRADE, ENDS LOAD BOAT, CTS SC~, EXPL & SLIDE-T @HOME |
| CDO-QO | DBL PST, LEADERS CLOVER, OTHERS STEP FWD & P TRADE @HOME |
| CDO-QO | CTS R&LT, CTS 1/2SAS, DBL PST, LEADS SEP & STAR-T, OTHERS STEP FWD &<br>P TRADE @HOME |
| CDO-QO | CTS PST & SPLIT OTS @1 TO LINE, PST, BEND LINE, ENDS BX-GNAT, R&LT AROUND OTS, OTHERS, SLIDE-T & BK OUT TO HOME |
| CDO-QO | CTS PST & SPLIT OTS @1 TO LINE, PST, CTS CALIF, CO3/4, NEW CTS P TRADE, ENDS STEP FWD & FACE IN @HOME |
| CDO-QO | ZOOM, DBL PST, CTS IN, CAST OFF ¾, ENDS SLIDE-T @HOME |

CDO is the CBI station but in a double pass thru formation by having centers wheel around as shown below.



**Appendix C: Rotational Modules**

| Rotational Module Table | Module Rotation | R-Shift IN Seq | R-Shift OUT Seq |
|---|---|---|---|
| 1a-TOUCH1/4, CIRCULATE, BOYS RUN, SLIDE-T<br><br>1b-TOUCH1/4, CIRCULATE, HINGE, G TRADE, RECYCLE | CW | Shift Left | Shift Right |
| 2-TOUCH1/4, COORDINATE, BEND LINE | CW | Shift Left | Shift Right |
| 3-PS~, SP-CH-T, ENDS CIRC DBL, SP-TOP, RECYCLE | CW | Shift Left | Shift Right |
| 4a-PS~, A/D, RECYCLE, SLIDE-T<br><br>4b-PS~, A/D, HINGE, SPLIT CIRC, B RUN<br><br>4c-PS~, A/D, SWING-T, B RUN, BEND LINE<br><br>4d-PS~, B CIRC, LINEAR CYCLE | CCW | Shift Right | Shift Left |
| 5-B EXTEND & SWING-T, B BKUP TO A LINE | CCW | Shift Right | Shift Left |
| 6-PS~, 8 CIRC, LINEAR CYCLE (or RECYCLE & SWEEP) | | Dbl Shift | |
| 7-PS~, SP-CH-T, G TURN BACK & CIRC ONCE, BEND=<br>(Use CPLS CIRC, BEND= if you prefer that flow) | | Dbl Shift | |

See reference 1, page 42, People Mover Modules for their discussion of Relationship shifting modules.