

DATC

DIPLOMACY ADJUDICATOR TEST CASES

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HISTORY OF CHANGES

Version	Date	Name	Change
1.0	2001- August-31	Lucas B. Kruijswijk	First public version
1.1	2001- August-31	Flooeey X. McBob	Added Test Cases 2.C, 4.E (renumbered following)
1.2	2001- September- 3	Lucas B. Kruijswijk	Added Test Cases 2.C, 4.A, 4.B, 4.C, 4.D (renumbered following)
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2.0	2003- December- 13	Lucas B. Kruijswijk	Major update. Comments collected during year processed. Adjudication algorithm added. Chapters rearranged. Some small changes in preferences. Choices of issues now numbered instead of bulleted.
2.1	2003- December- 16	Lucas B. Kruijswijk	Small textual changes after comments from David McCooey. Added unwanted support.
2.2	2004- January-23	Lucas B. Kruijswijk	Added note on DATC compliancy verification. Added test case 6.D.34, about support targeting own area. Small textual changes.
2.3	2004- February-6	Lucas B. Kruijswijk	Small textual changes after remarks from Christian Hagenah. Added version number. Changed license. Note on certification after change. Added issue 4.A.7 and test cases related to this issue. Added test 6.E.15, which the DPTG fails to adjudicate correctly.
2.4	2004- February- 10	Lucas B. Kruijswijk	Corrected test cases 6.G.16, 6.G.17 and 6.G.18.
2.5	2009- August-17	Lucas B. Kruijswijk	Made a reference to "The Math of Adjudication" article of the Diplomatic Pouch.

Reviewed by:

- Flooey X. McBob
- Brian Roberts
- Andrew Rose
- Rick Desper
- Simon Szykman
- Millis L. Miller
- David McCooey
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1. INTRODUCTION

Writing an adjudicator computer program for the game Diplomacy (TM) is not an easy job. Many adjudicator programs contain several bugs on their first release and even after some years, when the most severe bugs were removed, adjudication errors could still be found for more complex situations. To achieve a high quality adjudicator, the programmer has to overcome the following difficulties:

- Different rulebooks.
- Ambiguities in the rulebooks.
- An algorithm that is sophisticated enough to handle complex situations.
- Systematic testing of the adjudicator.

This document is a guide in handling these problems. With this document it is possible to write an adjudicator that is correct for the first release.

The principle of this document is to give the reader information and not to tell the reader how to do things. Therefore, all information is presented as neutral as possible and given with arguments or with reference to the source.

The primary sources of this document are the official English rulebooks. The additional sources are the 1998 DPTG (Diplomacy Players Technical Guide), comments from mister Calhmer (the creator of the game), magazines from the publishers of the game, various articles, discussions and house rules found on the internet.

A scientific approach has been taken to deal with all this information. If there was evidence that a certain idea or opinion is supported by a significant part of the Diplomacy (TM) community, then it was added to this document. This makes this document the most elaborated and complete source on the rules of Diplomacy (TM). Even so, it was not possible to list everyone's individual opinion.

An overview of the official English rulebooks is given in chapter [3](#). These rulebooks have in certain cases a different ruling and even when the latest rulebook is taken, then still some rule issues exist. These issues are listed in chapter [4](#) with the alternatives to handle them. An analysis of the process of adjudication is in chapter [5](#). Writing an adjudicator program is a straight forward job with this analysis. Finally, an adjudicator program needs to be tested in a systematic way and chapter [6](#) contains an extensive list of test cases with the expected resolution.

In case the rules are not clear on a certain situation, then the alternatives are in the list of issues

and in the test cases. To prevent that the reader becomes lost in lots of choices I (Lucas B. Kruijswijk) commented every rule issue. Those comments contain my preference how the rule should be interpreted. In this way the reader can start with these preferences and deviate where he or she wishes. To make a clear distinction between the text that is not disputed and my comments with my preferences, my comments are written in *italics*. Note however, that my preferences are based on an extensive study on the rules. Although you may dispute them, the choices are certainly very acceptable within the Diplomacy(TM) community.

With the elaborated information about the rules, this document can also be used by people that judge a game manually. The preferences can be used as default house rules in case the own house rules of the judge does not cover a certain topic.

The version of this document consists of two numbers. The first number will change and only change, when one or more preferences changes. The second one, is a sequence number.

In chapter [7](#) and further variants are handled. Variants are games that follow the rules of Diplomacy with a different map or with some additional rules. The chapters on variants are not complete yet. For instance, Air Units and Machiavelli are not handled yet.

2. 2000 RULEBOOK/DATC COMPLIANCY

Everyone is free to interpret the rules as he or she wants. But people want to know, which rules are used. Therefore, the term '2000 rulebook/DATC compliant' is introduced. An automated adjudicator may call itself '2000 rulebook/DATC compliant' when the following requirements are met:

- The 2000 rules are followed.
- For the cases where the 2000 rules are not clear, the preferences in this document must be followed. This only counts for the issues [4.A.1](#), [4.A.2](#), [4.A.3](#), [4.A.4](#), [4.A.5](#), [4.A.6](#), [4.A.7](#), [4.B.1](#), [4.B.2](#), [4.B.3](#), [4.B.4](#), [4.B.7](#), [4.D.7](#), [4.D.8](#), [4.D.9](#), [4.E.1](#), [4.E.3](#), [4.E.4](#) and [4.E.5](#).
- The adjudicator must pass all test cases of the standard game according to the preferences of the mentioned issues.
- In case the adjudicator is in the English language and uses abbreviations for reporting, then the abbreviations of the 2000 rules must be used. The adjudicator may accept other abbreviations. The abbreviation for 'Denmark' is 'Den' (not listed in the 2000 rules).
- The developers of the adjudicator must be devoted to resolve any reported bug in adjudication in the next update of the adjudicator.

The idea of the DATC is not to enforce one way of interpretation of the rules. Therefore, you may call an adjudicator '2000 rulebook/DATC compliant' as long as you list the deviations with the specified requirements. However, the adjudicator may not fail on any of the test cases (of course, the results must be according to chosen preferences). Deviations does not need to be listed, when they can be turned off or when it is an extension in a client program that does not change anything when it is not used (for instance choice b for [4.A.6](#), choice a for [4.E.4](#) and choice a for [4.E.5](#)).

Developers are considered to be honorable persons and may perform verification by their selves. After an update of the DATC an adjudicator does not need to be retested to keep the status of '2000 rulebook/DATC compliant'.

3. HISTORY OF RULES

Allan Calhamer started the development of Diplomacy in 1953. However the first commercial version was not on the market before 1959. So, the first real rulebook is from 1959.

Games Research bought the rights of Diplomacy in 1960 and their first edition was in 1961. Except from some restyling and the copyright notice of Games Research, the rules of 1961 are not different from the 1959 rules. These rulebooks have many ambiguities and are rather useless. Dealing with the issues of these rulebooks is out of the scope of this document.

Most of the issues of the 1959 and 1961 rulebooks were identified and addressed in the 1971 rulebook. The 1971 rulebook is the first mature rulebook. Since this rulebook has been popular for a long time and maybe still people play according to these rules, the differences with newer rulebooks are all explained in this document.

In 1976 Avalon Hill bought the rights from Games Research. In their first edition in 1976, they kept the rules the same and they only put their own name on the rulebook. In this document, only to the first appearance of a set of rules is referred. That means that the 1971/1976 rulebooks are referred as the 1971 rulebook in this document.

In 1982 Avalon Hill made a new edition of the game and made some small, but significant changes to the rules. These changes include the multi-route convoy disruption rule (see issue [4.A.1](#)), convoy disruption paradox rule (see issue [4.A.2](#)) and some clarifications on convoying to adjacent places (see issue [4.A.3](#)).

In 1992 Avalon Hill they introduced the 'Diplomacy de Luxe' edition. The rulebook was restyled, but the rules are identical to the 1982 rules. The rulebook does also contain a list of abbreviations for the provinces. Since, the rules did not change, the 1982/1992 rulebooks are referred as the 1982 rulebook in this document.

In 1998 Avalon Hill was bought by Hasbro and in 2000 the first Hasbro edition emerged. Note that you can see the year 2000 on the front page of the rulebook, however the copyright notice on the last page says 1999. Some people refer to this rules as the 1999 rules. In this document it is assumed that the front page is read more than the last page and therefore these rules are referred to as the 2000 rules. To make the rules more readable, the rules were completely rewritten. Edi Birsan was the main contributor to this rulebook. Except from restyling, there are also some real changes to the rules. The unpopular 1982 convoy, disruption paradox rule (see issue [4.A.2](#)) was changed again. The issue on convoys to adjacent provinces was further clarified (see issue [4.A.3](#)). Waiving builds is explicitly allowed (see issue [4.D.7](#)) and you can very well interpret the rules in such way that they do not allow the refusal of support by ordering an illegal order (see issue [4.E.1](#)). Also a significant change in the abbreviations of the provinces (note that the abbreviation of 'Denmark' is missing).

Unfortunately there are a few changes in the 2000 rulebook that made things worse than the 1982 rules. A rather minor issue is the removal of units in civil disorder (see issue [4.D.8](#)). In the 1971 and the 1982 rulebooks this was already rather vague, but in the 2000 rules it is really a mess. A more serious error is that it was forgotten to say that a failed convoy due to dislodged convoying fleets, has no influence on the destination province. Page 12 of the 2000 rulebook:

Dislodgement of a fleet in a convoy causes the convoy to fail. If a Fleet ordered to

convoy is dislodged during the turn, the Army to be convoyed remains in its original province.

While rule XII.3 of the 1971 and 1982 rules say:

DISRUPTING A CONVOY. If a fleet ordered to convoy is dislodged during the turn, the army to be convoyed remains in its original province and has no effect on the province to which it was ordered.

There are several reasons to assume that the 2000 rulebook was not intended like this and that this must be considered an error in the rules. First of all, Edi Birsan the main contributor to the 2000 rulebook, confirmed that this was not intended. Second, there is evidence in the rulebook itself that the rule should be read as the 1971/1982 rule. The whole page 16 would become unnecessary if convoying armies can still cut support when the convoy is dislodged (there are no paradoxes anymore). But especially the following phrase on that page is clear evidence:

Italy could argue that dislodgement of the Fleet disrupted the convoy so that the Army could not arrive in Naples to cut the support. (Italy could state the rule, "Dislodgement of a fleet in a convoy causes the convoy to fail.")

Since in the research for this document no evidence was found that there is a significant group of people that actually play that a disrupted convoy can still cut support (or bounce another unit), this is not listed as a disputable issue in chapter [4](#), but just treated as an error and that the 1971/1982 rule was meant.

Finally, there are numerous alternative rulebooks. For instance the rulebook of the variant Colonial Diplomacy. This rulebook is based on the 1971 rules (although the copyright is after 1982) and is discussed in chapter [7](#). Furthermore there are several translated rulebooks made for non-English versions of Diplomacy. These are not treated in this document. With the 2000 edition also an CD-ROM version was released by Hasbro/Avalon Hill/Microprose. This program has a tutorial for the rules. In the research of this document no additional information could be found about whether this version contains a paper rulebook and if it is any different from the rulebook supplied with the board game. So, obviously this version is not handled in this document and if it exists and it contains the 1999 or 2000 copyright notice, then we still refer to the rulebook of the board game when the 2000 rulebook is mentioned.

As last remark must be said that according to some reliable sources, Allan Calhamer has the right to veto any changes to the rules.

4. DISPUTABLE ISSUES

When playing Diplomacy, there is one golden rule. Making orders public is irreversible. If during a turn someone discovers that the adjudication was wrong, this can be corrected and even when the orders are submitted, the orders can be discarded and be rewritten. However, when the orders are made public, the players have shown their true intentions and it is not possible to hide them again.

This golden rule has two consequences. First, when the orders are made public, the adjudication of the previous turn, becomes final. Changing the adjudication of a previous turn, would lead to a big mess. Second, when the orders are made public, a decision has to be made on those orders.

This may lead to a serious dispute between the players, when those orders are not clear or the rulebook is disputable on the situation. Therefore, the main focus is on issues related to the pieces on the board and interpreting the written orders (some of them are irrelevant for an automated adjudicator, but are listed nevertheless). So, the problem of assigning powers to the players is not discussed, since this can easily be handled by the players.

The geography of the map is not disputed and therefore not discussed. To surprise to some new players, Norway is connected to St Petersburg both for army as for fleet, but this is not disputed. Although also not disputed, on some maps it is not completely clear, that Liverpool is connected to North Atlantic Ocean and Clyde is not connected to Irish Sea.

The issues in this chapter are not a FAQ (Frequently Asked Question) list, but most frequently asked questions can be found in the test cases. For instance the coastal crawl in test case [6.B.13](#).

After extensive study of the rules and discussions on the internet, my preferences are finally based on the following principles:

- *To follow the latest official rulebook as accurate as possible. For the moment this means the 2000 rulebook.*
- *To make a choice that supports the game. This means for instance that it should be avoided that the orders are executed different from the players intentions or that a player is surprised by an attack, because the player couldn't imagine that it was possible.*
- *To make a choice that is reasonable for all ways of playing, face to face, play by email, playing on the web or a PDA.*

I do not consider any aesthetical arguments. To my opinion, a rule is aesthetical when it is based on the points made above.

4.A. CONVOY ISSUES

4.A.1. MULTI-ROUTE CONVOY DISRUPTION

When a convoy has multiple routes, the question rises when the convoy is disrupted.

The following interpretations are possible:

- a. The convoy is disrupted when one of the routes is disrupted.
This is according to the 1971 rulebook and the DPTG.
- b. The convoy is disrupted when all of the possible routes are disrupted.
This is according to the 1982 and 2000 rulebook.

The 1971 rule has as disadvantage that a player that has a fleet that is almost certainly dislodged, can give an "unwanted convoy" as in test case [6.F.10](#). The DPTG avoids this problem by skipping any foreign units from a convoy when there is a route without foreign units. However, this solves the problem only partially. When there is no route without foreign units and there are two routes with each a different foreign fleet, it can not be decided based on the orders whether one of the convoy orders is unwanted (see test case [6.F.11](#)). Probably due to these issues the rule was changed in the 1982 rulebook.

I prefer to use the 1982 and 2000 rulebook (choice b) on this issue, because it prevents the mentioned problems. So, a convoy is disrupted when all routes are disrupted.

4.A.2. CONVOY DISRUPTION PARADOXES

A convoy disruption paradox is a situation with a possible disrupted convoy and for which the rules give no resolution or more than one resolution.

Some people argue that some situations are not convoy paradoxes, since the rules give a resolution for those situations. Hence, for a proper discussion on paradoxes, rule XII.5 of the 1971, 1976, 1982 and 1992 rulebooks and the rule on the top of page 16 of the 2000 rulebook, should not be taken into account in the above definition of a paradox.

In case of a paradox, the smallest subset of orders for which the paradox still exists, is the core of the paradox. In case there are several independent paradoxes on the board, then it is possible that there are two different subsets of orders with the same number of orders. In that case, just one can be taken to proceed. Since the paradoxes are independent it doesn't matter which one is handled first.

The following ways for handling convoy disruption paradoxes are possible:

- a. The 1971 rule about this issue is:

"If a convoyed army attacks a fleet which is supporting a fleet which is attacking one of the convoy fleets, that support is not cut." This rule has a few drawbacks. The rule does not have a resolution for second order paradoxes (see test cases [6.F.22](#), [6.F.23](#), and [6.F.24](#)) and the betrayal paradox (see test case [6.F.18](#)). In some cases it conflicts with the dislodge rule, although, the common interpretation is that this rule takes precedence (see test case [6.F.17](#)). Finally, when multi-route convoys are allowed and when such convoys are only disrupted when all routes are disrupted (note that this is not the case in the 1971 rulebook), it may result to some strange adjudication in some rare situations (see test case [6.F.19](#)).

- b. The 1982 rule about this issue is:

"If a convoyed army attacks a fleet which is supporting an action in a body of water; and that body of water contains a convoying fleet, that support is not cut. ". The advantage of this rule is that it is a simple and effective rule that eliminates all paradoxes. Compared to other rules that eliminate all paradoxes, it is the easiest rule to program in an adjudicator. However, the disadvantage is that it effects not only the paradoxical situations, but also many other cases. This has as consequence that players can do tricks with this rule to take advantage (see test cases [6.F.20](#) and [6.F.21](#)). It is also not clear what a "convoying fleet" means. Does it mean a fleet that is ordered to convoy? Or must there be at least an army that tries to convoy? Or must there be a possible route? Finally, as with the 1971 rule, it conflicts with the dislodge rule in some cases, although, the common interpretation is that this rule takes precedence (see test case [6.F.17](#)).

- c. The 2000 rule about this issue is:

"A convoyed Army does not cut the support of a unit supporting an attack against one of the fleets necessary for the army to convoy." This rule is just the 1971 rule, but adapted for the changed multi-route convoy disruption rule (see issue [4.A.1](#)) which was introduced in the 1982 rulebook. This has as advantage that it leads to more logical adjudication in case of multi-route convoys (see test case [6.F.19](#)). It has also all disadvantages of the 1971 rule.

So, the rule does not have a resolution for second order paradoxes (see test cases [6.F.22](#), [6.F.23](#) and [6.F.24](#)) and the betrayal paradox (see test case [6.F.18](#)). Also, in some cases it conflicts with the dislodge rule and again the common interpretation is that this rule takes precedence (see test case [6.F.17](#)).

d. Simon Szykman alternative (reworded):

"If a situation arises in which an army's convoy order results in a paradoxical adjudication, the moves of all involved convoying armies fail and have no effect on the place where they were ordered to convoy." This rule was proposed by Simon Szykman in a discussion with Manus Hand in the Diplomatic Pouch Zine (1999, Fall Retreat). Manus Hand defended the 1982 rule. In almost all situations this results in the same adjudication as the 2000 rule. Only in case that the convoying fleet dislodges a unit (see test case [6.F.17](#)) the result is different. However, as said before you must assume that the 2000 paradox rule takes precedence over the dislodge rule in this specific case. If this assumption is not made, then the 2000 rulebook does not have a resolution for this case and then it can be defended that the Szykman rule is compatible with the 2000 rulebook. The advantage of the Szykman rule is that it also has a resolution for second order paradoxes (see test cases [6.F.22](#), [6.F.23](#) and [6.F.24](#)). Another advantage is that it works for paradoxes that can occur with convoyable coastal areas that appear in some variants (see test cases [9.E](#), [9.F](#) and [9.G](#)). A disadvantage is that for determine the involved convoying armies, the paradox core should be calculated. However this is possible as is shown in chapter [5](#).

e. The 'All Hold' alternative:

"If a situation arises in which an army's convoy order results in a paradoxical adjudication, all the moves part of the paradoxical situation fail." This rule is often used as "backup" rule when the 1971 or 2000 fail to give a result. The advantage of this rule is that as in the Szykman alternative, it has a resolution for all paradoxes and also for paradoxes that can occur with convoyable areas. However, there are some drawbacks:

- The result for the most common paradox (see test case [6.F.14](#)), a situation that might appear during actual play, is not according to any rulebook and current practice (of course, this is not true if it is only used as backup rule).
- In case of multiple possible resolutions (see also test case [6.F.14](#)), it does not take one of the possible resolutions. From an aesthetical point of view, one might like a rule which keeps the other rules as much as possible intact.
- Applying the rule is error prone in manual adjudication. Since in normal play a turn consists of multiple moves, a mistake can easily be made when deciding which moves are part of the paradox core. This difficulty does not exist with the Szykman alternative, since there are often only a very limited number of convoys in a turn. Although the Szykman rule is not easy to comprehend, people that adjudicate manually can't do much wrong when applying it.

In practice the 'All Hold' rule is only used as "backup" rule. However, when this rule is referenced in this document, the rule is considered for all paradoxical situations. Where a situation must be considered paradoxical, as defined in this issue.

f. The DPTG resolution is a refinement on the 'All Hold' rule. In case the paradox has two resolutions and in one of the resolutions all the convoys of the paradox core are disrupted, then this resolution is chosen. In all other cases the 'All Hold' rule is used. The disadvantage of this rule is that it is more complicated than the Szykman rule and the 'All Hold' rule. Not only the paradox has to be calculated, but also whether the disruption of all convoys is a resolution consistent with the rules. For some algorithms this needs significant additional coding, while the resolutions of the simpler Szykman rule or 'All Hold'

rule differ only in some very rare cases.

Several people proposed alternatives for the paradox problem. However, only the suggestions above have significant support from the Diplomacy community. Some people use the principle of 'cause' in their alternative. Where 'cause' can be a direct cause, but also an indirect cause. It is rather unclear what the advantages are of introducing this new notion, while it introduces significant complexity for automated adjudication.

For making a preference it is necessary to decide what is important and what is less important. I think that the adjudication result in case of a paradox is the least important thing, since the paradoxes are a rare phenomenon in actual play and any rule in case of a paradox does not change the balance of the game. However, I think the following is important:

- *The latest official rule is preferred by default.*
- *It should have a resolution for all paradoxes (for closing the discussion).*
- *Rule tricks should be avoided such as in test cases [6.F.20](#) and [6.F.21](#).*
- *For explaining the rules to a new player it should be sufficient to say that paradoxes with convoys are possible and that there are some special rules for it. If the rule has also impact on situations that are not paradoxical (such as the 1982 rule) it is necessary to explain the rule to new players. And I don't like to bother new players with such technical details.*

Based on these guidelines, I prefer the Simon Szykman alternative (choice d). It can be enough defended that this rule is compatible with the 2000 rulebook. Furthermore the case which can be disputed on the compatibility of the Szykman rule with the 2000 rulebook, is very theoretically and will not appear in real play. I have the impression that the 1982 rule has never been very popular, since I did not find many house rules that follow the 1982 rule (although I did find some adjudicators that follow the 1982 rule).

4.A.3. CONVOYING TO ADJACENT PLACE

It is allowed to convoy to an adjacent place. This can be used to swap two units (such as in test case [6.G.1](#)). If the units are ordered in such way that a convoy to an adjacent place is possible, the question arises whether the convoy route must be considered or the land route.

It can not just be said that the land route is taken or the convoy route, comparable with the multiple convoy routes rule. The reason for this is that different rules apply in the different situations. If an army takes the land route and the unit on the target area moves in the opposite direction, then there is a head to head battle. While in case of the convoy route there is no head to head battle. If the attacked unit is dislodged by the head to head battle, the attacked unit has no effect on the area from which it is attacked, while in case of a convoy it still has effect (see test cases [6.G.9](#) and [6.G.10](#)). It is also possible that the convoy route is only available when the land route is taken (see test case [6.G.11](#)). Finally it has a relation with the issue of cutting support by a convoy to adjacent place (see [4.A.4](#)) and the issue of retreat after dislodged by a convoy to adjacent place (see [4.A.5](#)).

For these reasons it must be clear which route is taken at some point during adjudication.

The following interpretations are possible:

- a. The 1971 rulebook does not have a rule that specifies which route has to be taken. The simplest solution is to choose always the convoy route above the land route. The disadvantage of this interpretation is that all kinds of army "kidnapping" are possible. This can result in an unexpected swap (see test case [6.G.2](#)), but also in rather unfair failures of moves with superior power (see test case [6.G.3](#) and [6.G.4](#)).
- b. In March 1979, Rod Walker clarified the 1971 rules to some extent in the "QUESTIONS & ANSWERS" section of the "THE GAMER'S GUIDE TO DIPLOMACY", 2nd edition. The following can be found:

11. Q: We think there is a conflict in the Rulebook. These orders might not occur often, but what if they do?

ENG: F Edi-Nth, F Lon S F Edi-Nth.

FRA: F Nth C GERMAN A Hol-Bel.

GER: A Hol-Bel.

Doesn't the disruption of the convoy prevent the German army from moving?

A: No. The Rules (VII.1, third paragraph) clearly state that an army may move to an adjacent province if unopposed. In this situation, the convoy order is not relevant to the army's ability to move from Holland to Belgium. Even if the F Nth were German, so that it was clear that the German player intended (for some arcane reason) that the army should move by convoy, Rule VII.1 would still operate to allow A Hol-Bel to succeed if unopposed. Actually, the only time you might expect to see an army convoyed between adjacent provinces is when an otherwise illegal exchange of units is taking place (see Rule XIV.5, third paragraph). Consider this situation:

ENG: F Edi-Nth, F Lon S F Edi-Nth.

GER: F Bel-Hol, A Hol-Bel, F Nth C A Hol-Bel.

In this situation, the German F Nth is dislodged and the convoy is disrupted. The two German movement orders, both still legal, now boil down to a stand-off.

Given this information, the following rule can be defined: "The land route is taken except when the unit in the target area moves in opposite direction.". This prevents at least the type of kidnapping as in test case [6.G.3](#), but some unwanted convoys are still possible as in test case [6.G.2](#) and [6.G.4](#). An advantage of this rule is that issue [4.A.4](#) is not relevant anymore and the already theoretical issue [4.A.5](#) is even more theoretical.

- c. The previous choice can be refined as follows: "The land route is taken except when the unit in the target area moves in opposite direction and there is an undisrupted convoy route.". This means that first the convoy route must be adjudicated, before it can be decided whether the army moves over land or via convoy. The disadvantage is that adjudication is more complicated, because this is the only choice where the decision whether an army moves by convoy can not be decided before the real adjudication starts (see also [5.B.10](#)). However, it is possible to do a proper adjudication, because the units that move in opposite direction do not disturb any other order and therefore the convoys

can adjudicated first. A paradoxical situation as in test [6.G.11](#), does not lead to any issues. This rule prevents the kidnapping for all dislodging purposes as in test case [6.G.3](#) and [6.G.4](#), however an unintended swap as in test case [6.G.2](#) is not prevented. An advantage of this rule is that both issue [4.A.4](#) and issue [4.A.5](#) are not relevant anymore.

d. The 1982 and 2000 ruling.

The 1982 rules say: "BOTH A CONVOY ROUTE AND AN OVERLAND ROUTE. If an army could arrive at its destination either overland or by convoy, one route must be considered and the other disregarded, depending upon intent as shown by the totality of the orders written by the player governing the army". The "intent" is rather vague. In the 2000 rulebook this is completely rewritten. It is more specific and does not use the term "intent". However, it does follow the principle of "intent" and therefore it is rather common to interpret the 1982 rules as the 2000 rules the same. When in the 2000 rules, one of the convoying fleets is of the same nationality of the army that convoys, then the intent is to convoy. There is still a special case when the fleet of the same nationality indeed orders the army to convoy to the right place, but the fleet is not a part of an ordered convoy path (see test case [6.G.6](#)) or not part of a possible convoy path (see test case [6.G.7](#)). The 2000 rulebook is not clear on this, but the most common interpretation is that when the fleet is part of a possible convoy path, the intent is still to convoy and therefore the convoy path should be chosen. However, if the fleet is not part of a possible convoy path, then the intent is to confuse the judge and therefore the land route should be taken. Furthermore, an impossible convoy order can be treated as illegal (see issue [4.E.1](#)) and in such case it is ignored anyway. When the order for the army contains the words "via Convoy" or "by Convoy" the intent is to convoy. Note that if there is only a land route possible, the intent is unimportant. That means that if the order contains "via Convoy" and there is no possible convoy route ordered, the land route should still be considered (see also test case [6.G.8](#)).

e. Explicit adjacent convoying.

The DPTG specifies explicit adjacent convoying. If there is a land route and the order does not contains "via Convoy" or "by Convoy" only the land route should be considered. If the order contains "via Convoy" or "by Convoy" only convoy routes should be considered even when there are no convoy routes.

There are two notations to order an army that it should use a convoy. The "by Convoy" notation is the most common notation, however the "via Convoy" notation is used in the 2000 rulebook. Through this document the notation of the 2000 rulebook is used.

The 2000 rule solves indeed the problem of kidnapped armies. However, the rule is maybe a little too much. It introduces quite a lot of details. Furthermore, in the research of this document a case was found where two players (in a game played with the 2000 rules) wanted to swap, but didn't give the orders properly. It must be realized that a swap with a foreign fleet maybe only happens one out of ten games. If a face to face game takes about six hours, then you need sixty hours of play to have at least one experience with the 'via Convoy' order. So, what is worse? Take also into account that the kidnapping of armies is also fun. I advice that if there is a new edition of the rules that choice c must be considered (after analyzing a few dozen of games on the consequences). For the moment I prefer to follow the rules and that means choice d.

4.A.4. SUPPORT CUT ON ATTACK ON ITSELF VIA CONVOY

A move can not cut a support, if the support is a support of an attack on itself. But what if the move is via convoy (see test case [6.G.13](#))?

Note, if a convoy to an adjacent place can only take place when the unit moves in opposite direction (choice b an c for issue [4.A.3](#)), then this issue is not relevant anymore. Then the moving unit will take the land route and the support will not cut.

The following two interpretations are possible:

- a. The support is not cut.
- b. The support is cut (DPTG).

The main issue is the interpretation of the word 'from' as used in the rulebook. If 'from' is interpreted as the starting position of the army being convoyed, then the support is not cut. However, if the attack is coming 'from' the body of water, then the support is cut.

This has been discussed on the newsgroup 'rec.games.diplomacy' and on the 21th November 2001 Randy Hudson and Mike Lease gave the following arguments why 'from' should be interpreted as the starting position of the army:

It's not phrased as a clarification of the "cutting support" rule (Rule X) in the 1976 rules. I've now printed out a copy of the 2000 rules from the Hasbro web site, and in the explanation, it offers the example:

France: A Tun-Nap, F Tyn C A Tun-Nap
Italy: F Ion-Tyn, F Nap S F Ion-Tyn

The explanatory text goes on to say that France could argue that support is cut (thus preventing the convoy from being disrupted), citing the rule, "Support is cut if the unit giving support is attacked from any province but the one where support is being given." IOW, since the army is coming from Tunis, it would normally be entitled to cut the support for F Ion-Tyn given by Naples, thereby preventing the convoy from being disrupted. This "new rule" (author's words) gives an exception to that rule, overriding the usual rule and eliminating the paradox. This rule **WOULD NOT BE NECESSARY** if the army were deemed to be coming from Tyn (the space being attacked). But the author says it **IS NECESSARY** ("...this rule takes precedence" [over the usual rule that would apply]), therefore, the army **MUST** be deemed to come from Tun, and this rule exists to provide an exception to avoid paradox. But it only applies to a situation in which a convoy would be disrupted if the support is effective, but not disrupted if the support is ineffective. Therefore, for all other convoys, the ordinary interpretation should be that the army is deemed to come from the province in which it began the turn, and thus an army which can reach a province either via land or via convoy cannot cut support for an action against the province in which it started the turn, whether or not it is convoyed to the supporting unit's province. QED.

Stephen Agar sent this problem to Allan Calhamer (the creator of Diplomacy). Before he got a response he followed up with the arguments of Randy Hudson and Mike Lease. On the 24th of November 2001, Allan Calhamer responded:

Good argument. I had always thought of the Army as coming from its province, not from the body of water, but your correspondent appears to show actual rule support for the proposition.
Best regards, Allan

So, according to the creator the attack is coming from the starting position of the army.

However, you can have also another view on this issue. If you look to support as something that is passing a border, then the support is not cut when the attack and support are clashing on the same border. In case of a convoy, there is no such clash, so it would be more logical to say that the support is cut (choice b). Taking this border point of view, it would be preferred that the choice is consistent with issues [4.A.5](#) and [4.A.7](#).

Of course, I follow the interpretation of the creator. Therefore, I prefer that the support is not cut (choice a).

4.A.5. RETREAT WHEN DISLODGED BY CONVOY

In a very rare situation (see test case [6.H.11](#) and [6.H.12](#)) a unit can be dislodged by a convoy from an adjacent place. Then the question arises whether the dislodged unit may retreat to the starting place of the convoying army.

The following two interpretations are possible:

- a. The unit may not retreat to the starting place of the attacker.
- b. The unit may retreat to the starting place of the attacker when the attack was with convoy.
This is according to the DPTG.

First note that if issue [4.A.3](#) is played according to choice c, then this issue is not relevant anymore. If it is played according to choice b, then this is only an issue in the extremely theoretical situation that both units attempted to move by convoy (see test case [6.H.12](#)).

All the rulebooks are ambiguous on this issue. They say first "A dislodged unit must retreat to an adjacent province that it could ordinarily move to if unopposed by other units.". According to this sentence the unit may retreat to the starting place of the attacker (choice b). However, in further explanation all the rulebooks say: "The unit can not retreat to the province from which the attacker came.". For the interpretation of the word 'from' see also issue [4.A.4](#). This sentence must be interpreted that the particular retreat is not allowed.

Since the rulebooks are ambiguous on this issue, I prefer the option that seems most logical. Since the attacking unit did not pass the border over which the retreating unit wants to go, it is logical that this retreat is possible. So, I prefer choice b.

4.A.6. CONVOY PATH SPECIFICATION

Some popular automated judges require that a path is specified for the army that convoys. For instance:

England:
F North Sea Convoys A Yorkshire - Belgium
A Yorkshire - North Sea - Belgium

This way of writing convoys has never been part of the official rules and is also not according to the DPTG. According to some sources this is because the person that wrote the first automated judge, did not know how to write an algorithm that searches for a convoy path and that since then it has never been changed. This is a little bit strange story, since writing an algorithm that

searches for a path is much easier than writing an adjudicator. On the other hand the quality of the first version of the adjudicator might not have been that good.

The advantage of path specification is that it might be easier to code and that "unwanted" convoys are not possible. There are four types of "unwanted" convoys:

- An unwanted multi-route convoy to prevent convoying.
If a fleet is almost certainly dislodged, the player can anticipate a convoy of the enemy and give its fleet the order to convoy the army of the enemy. If convoys are disrupted when one of the routes is disrupted (the 1971 rule, see issue [4.A.1](#)), the convoy of the enemy will fail. See also test case [6.F.11](#).
- An unwanted multi-route convoy to take advantage of the paradox rule.
If a support of a fleet on another fleet is almost certainly cut by a convoy, the player can give the other fleet a convoy order to prevent dislodgement. This is only possible with the 1971 and 1982 paradox rule (see issue [4.A.2](#)). See also test case [6.F.20](#).
- An unwanted convoy to an adjacent place.
This can be for two different reasons. One to swap for getting a unit behind enemy lines or just as a joke (see test case [6.G.2](#)) or two to prevent a move to succeed. This only works when the dislodgement of the fleet is anticipated. In such a situation the player can also anticipate a move of an army of the enemy and order the fleet to convoy that army to its adjacent place. If kidnapping armies is possible (not possible with the 1982 rulebook and the clarification of the 2000 rulebook, see issue [4.A.3](#)), the move of the army will fail. See also test case [6.G.3](#) and [6.G.4](#).
- To let a convoy succeed that would otherwise fail.
A situation is possible that a player is betrayed when a convoying fleet is dislodged. In such a case the player might want that the convoy fails, because of a better defense position. The enemy can prevent this by ordering an alternative convoy route. See also test case [6.F.13](#).

The first three unwanted convoys are not possible with the 2000 rulebook. So, the argument of preventing unwanted convoys is hardly valid.

This issue can be handled in the following ways:

- a. Path specifications are not allowed and if they are ordered then they are ignored.
- b. Path specifications are allowed but not required.
- c. Path specifications are required. The convoy fails if the order does not contain the path.

If path specification is required in a face to face game, this may lead to problems. Suppose that someone clearly intends to convoy, but forgets the path. For instance, England orders York to Holland with a fleet in the North Sea that is ordered to convoy. If path specification is required, then the order from York to Holland without path makes no sense. But, since we do a best effort to interpret the orders, we may still decide that the army is convoyed. If we allow this, then we get all issues related to multi-route convoying back. So, I do not prefer that path specification is required in face to face games (I have not seen any house rules for manually adjudicated games, that require path specification). Since, I prefer that face to face games are played as much as possible the same as postal and email games, and since I prefer that is played according to rules I prefer that path specifications are not required and ignored (choice a). However, for compatibility reasons I can also live when both are allowed (choice b) but only for automated judge systems.

4.A.7. AVOIDING A HEAD TO HEAD BATTLE TO BOUNCE A UNIT

The rulebooks say that if a unit is dislodged, then it has no influence on the area where the attacker came from. Of course, this is only significant when the units move in opposite direction. However, when two units move in opposite direction, they do not necessary be engaged in a head to head battle. It is possible that one of the units convoys. The question arises, whether the dislodged unit can still bounce a third unit. See also test case [6.G.10](#), [6.G.14](#) and [6.G.15](#).

The following interpretations are possible:

- a. A dislodged unit has never effect on the area where the attacker departed from.
This is the literal interpretation of the rulebook. It can be properly adjudicated, but the adjudication is confusing (see also [5.B.6](#)).
- b. A dislodged unit has only no effect on the area where the attacker departed from, when it was engaged in a head to head battle (DPTG).
This resolution is more natural, because before the unit was dislodged it was already engaged in a fight with the third unit and bouncing it. From the rulebook point of view, it can be defended by saying that swapping two units with a convoy, is a special rule which makes an exception to the other rules. This exception also includes the possibility of bouncing a unit, even when it is dislodged.

Although choice a is more according to the rulebook, I think choice b is how it is intended. Therefore I prefer choice b. This choice is also consistent with choice b of issue [4.A.5](#), where we really look what is passing the border, instead of looking where the unit comes from.

4.B. COASTAL ISSUES

4.B.1 OMITTED COAST SPECIFICATION IN MOVE ORDER WHEN TWO COASTS ARE POSSIBLE

If a move order of a fleet to a multi-coast area does not contain a coast where the fleet can move to both coasts, different adjudicators may react differently.

The following interpretations are possible:

- a. The move fails.
This is according to all rulebooks and the DPTG.
- b. A move is attempted to a default coast.
Some adjudicators are implemented this way.

The disadvantage of the default coast is, that there is no standard for default coasts and there is no graphical notation to show what the default coast on the map is.

I prefer that the move fails (choice a), because of the disadvantages of the default coast.

4.B.2 OMITTED COAST SPECIFICATION IN MOVE ORDER WHEN ONE COAST IS POSSIBLE

If a move order of a fleet to a multi-coast area does not contain a coast where the fleet can only move to one coast, different adjudicators may react differently.

The following interpretations are possible:

- a. A move is attempted to the only possible coast (DPTG).
- b. A move is attempted to a default coast.
Some adjudicators are implemented this way.
- c. The move fails.

As I said before I do not like the idea of a default coast. I also do not see the need for specifying a coast when only one coast is possible. Therefore I prefer that a move is attempted to the only possible coast (choice a).

4.B.3 MOVE ORDER TO IMPOSSIBLE COAST

If a move order of a fleet to a multi-coast area does contain a coast but the specified coast is not possible, different adjudicators may react differently.

The following interpretations are possible:

- a. The coast is ignored and a move is attempted to the possible coast.
- b. The move fails.

I do not like the idea of changing an unambiguous order. Therefore I prefer that the move fails (choice b).

4.B.4. COAST SPECIFICATION IN SUPPORT ORDER

The rulebooks clearly specify that a fleet can support another fleet to a coast which it can not reach (a fleet in Greece can support a fleet from the Black Sea to the east coast of Bulgaria). However, it is less clear whether the coast must be specified in the support order. This is one of the most controversial issues. Although the situation is rare because of the limited number of places on the board where it can happen, it is not theoretically and it will happen once in a while.

The following interpretations are possible:

- a. Coast specification is mandatory in support orders and must match. A missing coast specification results in a failed support.
You can interpret the rules this way, because the rule say that a support order "must match".
- b. Coast specification is mandatory in support orders and must match. In case of a missing coast specification a default coast is taken.
- c. Coast specification is mandatory in support orders and must match. In case no coast is specified, it must be treated as a poorly written order. That means that the support will not fail for this reason if the moving fleet is of the same nationality or can only go to one coast. This is also supported by a statement of the creator Allan Calhamer (see rec.games.diplomacy, august 29th 2002):

Stephen Agar wrote:

Allan

Could you spare the time to give your view on how to adjudicate the following situations - as you can see they all depend on how you treat the coast designations in each situation.

Turkey: F Con-Bul(ec)

Russia: A Rum S Turkish F Con-Bul(sc)

Austria: A Bul Holds

Turkey: F Con-Bul(ec)

Russia: A Rum S Turkish F Con-Bul

Austria: A Bul Holds

Turkey: F Con-Bul(ec); A Rum S F Con-Bul

Austria: A Bul Holds

Many thanks.

PS. The next issue of Armistice Day is in the post - hope you like the cover!

Regards

Stephen Agar

Dear Stephen: I would consider the supports in the first two cases no good, since I think allies should be in evident agreement on the moves. The support in the third case I would consider good.

Best regards, Allan

- d. Coast specification is allowed, but not mandatory. If it is specified, the coast must match, otherwise the support is to all coasts.
- e. Coast specification is not possible in a support order. Any specification of coast in a support order is ignored.

This is according to the DPTG. Some people argue that this is according to the official rules. The 2000 rulebook says that a fleet that can move to a province having multiple coasts can support a move into that province without regard to coasts. Given the statement "without regard to coasts", it might make more sense for a support order to succeed even if a coast is specified but doesn't match. However, you can also argue that this rulebook statement refers to the ability that a support can be given to all coasts, even when the unit can not go to the supported coast and that the statement does not refer to the notation.

I do agree with the concept of mister Calhamer that players should be in evident agreement on the moves. Therefore, I do not like choice e. However, mister Calhamer is a conceptual thinker and not a rule thinker. In the research for this document I found some evidence that automated judges changed the adjudication in favor of choice d after some complains. If the conceptual right choice c of mister Calhamer is compared with the practical choice d, the following two situations must be considered. The first situation with choice c is that a person gives a support to another player, but that support fails because the coast was missing. The second situation is with choice d that a person gives a support to another player without coast specification and the other player betrays and moves to the not expected coast. Both situations are undesirable and

must be avoided if possible. However, I consider the first situation far more likely to happen than the second situation. Furthermore in the second situation the support giving player had still the opportunity to avoid the unexpected move by specifying the coast (this is not completely true since the other player could pressure the player to give support without coast, but this is not very likely since that would be very suspicious). Finally, choice d is easier for new players, because the issue does not need to be mentioned and the adjudication is with or without coast specification more or less what they expect. For this reason I consider choice d the most supportive for the game and that is why I prefer that coasts may be omitted, but must match when they are specified (choice d).

4.B.5. WRONG COAST OF ORDERED UNIT

How should an order directed to a fleet on the north coast be executed when the fleet is actually on the south coast?

The following interpretations are possible:

- a. The move fails.
- b. Such coast specification is just ignored.

I prefer that such garbage in the orders is just ignored (choice b).

4.B.6 UNKNOWN COASTS OR IRRELEVANT COASTS

How should an order be executed that contains an unknown coast, such as Spain west coast or Brest east coast. And how should an order be executed when the coast is just irrelevant, such as an army movement to the north coast of Spain?

The following interpretations are possible:

- a. The move fails.
- b. Such coast specification is just ignored.

I prefer that such garbage in the orders is just ignored (choice b).

4.B.7 COAST SPECIFICATION IN BUILD ORDER

When a fleet is built in multi-coast area (St Petersburg), the coast must be specified. When the player does not specify the coast, the situation can be handled in different ways.

The following interpretations are possible:

- a. The build will fail.
This is according to the rulebook
- b. The fleet is built on a default coast.

As said before, I do not like the idea of default coasts. Therefore, I prefer that the build fails (choice a).

4.C. UNIT DESIGNATION AND NATIONALITY ISSUES

4.C.1 MISSING UNIT DESIGNATION

When the designation of the type of a unit (A or F) is omitted, the following could be decided:

- a. The order is invalid (the unit can receive hold support).
- b. The order is still valid.
- c. The order is still valid unless there is another order with the correct designation of the unit (the order with the missing designation is ignored).

The problem of this choice is that the other order might be unclear for another reason.

Since the order is not ambiguous, I prefer that the order is still valid (choice b).

4.C.2. WRONG UNIT DESIGNATION

When the designation of the type of a unit (A or F) does not match with the actual type of the unit, the following could be decided:

- a. The order is invalid (the unit can receive hold support).
- b. The order is still valid.
- c. The order is still valid unless there is another order with the correct designation of the unit (the order with the wrong designation is ignored).

The problem of this choice is that the other order might be unclear for another reason.

I think a best effort should be made to interpret the order, therefore I prefer that the order is still valid (choice b). This means that the unit type designation is in fact ignored. You can argue whether the unit type designation has any use. However, if other parts of the order are unclear, the unit type designation might help.

4.C.3. MISSING UNIT DESIGNATION IN BUILD ORDER

A player might forget to specify whether it wants to build an army or a fleet. Such situation can be handled in the following ways:

- a. The build fails always.
- b. The build fails for coastal areas, but an army is build when the build is ordered in a land area.
- c. An army is build in a land area and a fleet is build when the build is ordered in a coastal area and a coast is specified. When no coast is specified, the build fails.

I prefer that a best effort is made. Therefore I prefer that the order only fails when the area is coastal area and the order did not contain a coast (choice c).

4.C.4. BUILDING A FLEET IN A LAND AREA

A player might try to build a fleet in area that can not contain fleets. Such situation can be handled in the following ways:

- a. The build fails always.
- b. An army is build on the specified place.

First of all, I do not consider such order ambiguous. Second, if it has to be changed, there are alternatives. The player may want a fleet on another place or the player may want to waive the build instead. Since this can not be concluded based on the given order, I prefer that the build fails (choice a).

4.C.5. MISSING NATIONALITY IN SUPPORT ORDER

When the designation of the nationality of supported or convoyed foreign unit is omitted, the following could be decided:

- a. The order is invalid.
 - b. The order is still valid.
 - c. The order is still valid unless there is another order with the correct designation of nationality (the order with the missing designation is ignored).
- The problem of this choice is that the other order might be unclear for another reason.

Note that there are adjudicators that can not parse the nationality in support orders.

Specifying the nationality in support orders is a rule that is often ignored. I prefer that the order is just valid (choice b).

4.C.6. WRONG NATIONALITY IN SUPPORT ORDER

When the designation of the nationality of supported or convoyed foreign unit is incorrect, the following could be decided:

- a. The order is invalid.
 - b. The order is still valid.
 - c. The order is still valid unless there is another order with the correct designation of nationality (the order with the incorrect designation is ignored).
- The problem of this choice is that the other order might be unclear for another reason.

Note that there are adjudicators that can not parse the nationality in support orders.

I think a best effort should be made. Therefore, the order should just be valid (the second option). This means that the nationality is in fact ignored (choice b). You can argue whether the nationality has any use. However, if other parts of the order are unclear, the nationality might help.

4.D TOO MANY AND TOO FEW ORDERS

4.D.1 MULTIPLE ORDER SETS WITH DEFINED ORDER

If a game is played by email or by post, the game master (or automated judging system) may receive multiple order sets. Of course, if there is a clear what the latest order set is, then the latest order set replaces any previous order sets. However, if the latest order set is incomplete, it could be handled in the following two ways:

- a. All order sets are combined to one set of orders.
- b. All order sets are combined to one set of orders, unless it is clear that the latest order set

replaces all earlier sets.

- c. Only the latest order set is considered, unless it is clear that earlier sets must still be taken into account.
- d. Only the latest order set is considered.

In principle this is something that should be handled in the house rules. However, when it is not handled in the house rules, then I think the interests of both players and judge are best served when in principle a new set replaces an old set and only earlier sets are taken into account when it is clear from the order set (choice c).

4.D.2. MULTIPLE ORDER SETS WITH UNDEFINED ORDER

Also in face to face games strange things can happen. When two sets of orders are submitted in a face to face game, then it is probably not clear which order set is the latest one. The following could be decided:

- a. All units hold.
- b. All order sets are combined to one set.

I think a best attempt should be made to interpret the orders. Therefore, I prefer that all orders sets are combined (choice b).

4.D.3. MULTIPLE ORDERS TO THE SAME UNIT

It might also occur that a player orders a unit twice or even more, with at least two orders that are not the same (if the orders are the same, then it should just follow that order). This situation is not covered by any rulebook and only in house rules.

First of all, it should be decided what should be treated as order. This is discussed in issue [4.E.1](#). Any illegal order should be ignored. That means that if a unit gets a legal and an illegal order, then there are in fact no multiple orders and only the legal order should be handled. This may sound theoretically, but this is exactly what can happen when someone swaps two names in a support order.

The following interpretations are possible:

- a. The first order is used.
- b. The last order is used.
- c. The order is illegal and changed in a hold order (able to receive a hold support)

Note that this is only an issue when the two orders are in the same order set. In case of multiple order sets see issue [4.D.1](#) and [4.D.2](#).

A player can have many units (especially in Colonial). In a face to face game it might not be that clear which order is first (if multiple papers are used or when the player uses columns). Therefore, I prefer the last interpretation (choice c). However, for an automatic adjudicator program an other solution might fit better with the user interface.

4.D.4. TOO MANY BUILD ORDERS

It might occur that a player orders too many builds. The rulebooks do not give a solution to this specific situation.

The following interpretations are possible:

- a. All build orders are invalid.
- b. The first legal build orders are used.
- c. The last legal build orders are used.

Note that this is not an issue when the build orders are in different order sets. In case of multiple order sets see issue [4.D.1](#) and [4.D.2](#).

I have taken part in a face to face game where this happened. France ordered three builds in 1901 while he was allowed to build only two units. If all builds were denied, then it would not only ruin the game for the player of France, but also for all other players. Therefore, I prefer that the first legal orders are used (choice b). Although, in case of an automatic adjudicator, a other solution might fit better with the user interface.

4.D.5. MULTIPLE BUILD ORDERS FOR ONE AREA

Each area can have only one unit. This makes an order for building both fleet and army in one and the same area illegal.

The following interpretations are possible:

- a. Both build orders fail.
- b. The first build order is used.
- c. The last build order is used.

Note that this is not an issue when the build orders are in different order sets. In case of multiple order sets see issue [4.D.1](#) and [4.D.2](#).

Comparable to too many build orders, I prefer that adjustments orders are just executed one by one. So, I prefer that the first build order is used (choice b).

4.D.6. TOO MANY DISBAND ORDERS

Comparable with the situation that a user orders too many build orders, a player can also order too many disband orders. The different rulebooks do not give any answer how to handle such situation.

The following interpretations are possible:

- a. All disband orders are handled according to the civil disorder rules.
- b. The first legal disband orders are used.
- c. The last legal disband orders are used.

Note that this is not an issue when the disband orders are in different order sets. In case of multiple order sets see issue [4.D.1](#) and [4.D.2](#).

I prefer that it is handled similar to the situation where too many build orders are given. So, I

prefer that the first legal disband orders are used (choice b). Although, in case of an automatic adjudicator, a other solution might fit better with the user interface.

4.D.7. WAIVING BUILDS

The 1971 and 1982 rulebooks are ambiguous about waiving builds. Two interpretations are possible:

- a. Waiving builds is allowed.

This is according to the 2000 rulebook which explicitly specifies that a build can be waived (page 18: "A country can decline to build a unit that it is entitled to for whatever reason (usually a diplomatic one)").

- b. Waiving builds is not allowed.

The disadvantage of not allowing to waive builds is that additional rules are required when someone forgets to build

Note that if the game is played by email or by post, it may required that the build is explicitly waived. In this way the waiving of builds can be distinguished from no orders received. This is not an issue in face to face games.

With the 2000 rulebook this is not really an issue anymore. Allowing to waive builds is just a perfect rule. Therefore, I prefer that builds can be waived (choice a).

4.D.8. REMOVING A UNIT IN CIVIL DISORDER

The rulebook specifies which unit must be removed when a country in civil loses a supply center. However, the way it is described allows multiple interpretations.

In the 1971 and 1982 rulebooks, the distance of each unit to the home supply centers must be calculated. The distance must be calculated by "the shortest available route, including convoys". This allows multiple interpretations. Must fleets be available for convoying? And must convoys be calculated as one move?

The 2000 rulebook is even more vague about this. The distance must be calculated to the "country". The term 'home supply centers' is not used. Taking the word 'country' literally means that also some provinces without supply center must be taken into account (for example, Apulia as part of Italy). Furthermore, information how the distance should be calculated is also less clear then the in the 1971 and 1982 rulebooks (the word 'convoy' is not used).

I interpret the 2000 rule just as the 1971 and 1982 rule. There was no reason to change this rule and the change in formulation was probably an attempt to simplify the formulation, with the consequence that the rule became just more vague. Taking country literally instead of home supply centers has some severe drawbacks. First it means that in some cases an unit has to be removed in a home supply center. Second, on some alternative maps the ownership of areas is not drawn. And finally, for automatic adjudicators it would require that they know the ownership of every area. This is currently not implemented and it will probably never be implemented for just the civil disorder rule. I consider the 2000 rules on this issue such a mess, that it is defendable decision to just take the rule from the 1971 or 1982 rulebook.

The following interpretations of 'moves' are possible when calculating the distance:

- a. Fleets and armies may only move regularly and convoys must be counted as one move and there does not need to be a fleet.

The disadvantage of this interpretation is that many areas get the same distance.

- b. Fleets and armies may only move regularly and convoys must be counted as one move, but the country in civil disorder must have fleets to convoy the army.

This interpretation introduces a new issue. Should the units be removed one by one or should the distance of all units be calculated first? This interpretation has also as disadvantage that units on islands may have no distance at all.

- c. Fleets and armies may only move regularly and convoys must be counted as one move, but there must be fleets of any country to convoy the army.

This interpretation has the same disadvantages of the previous interpretation.

- d. Fleets may only move regularly, but armies may also move as a fleet (so, a convoy is not counted as one move, but one plus the number of fleets involved). This interpretation is according to the DPTG.

The disadvantage of this interpretation is that it is difficult to match with literal text of the 1971 and 1982 rulebook that uses the word 'convoy', since convoys are a single move in a main phase.

- e. The distance is calculated the same for fleets and armies were both units have the abilities of each other. So, fleets can use land areas (coasts are irrelevant) and armies can use sea areas.

First it must be realized that it is sufficient to have an arbitrary result as long as it is a precise defined result. I think that choice a, b and c, in this respect, do not really qualify for this purpose. I think that the intent of the rule was choice d (as the DPTG interpretation) and therefore I prefer choice d. That means that the distance of fleets are calculated by only taking regularly moves, while armies may also move as a fleet.

There is also a complete different way of removing a unit (this is used in some house rules, but is not supported by any rulebook):

- f. If a power is required to remove a unit and no valid order is received, the least recently produced unit that is not at a supply center will be disbanded. This is the first one listed on the reports which will be the one most likely to be furthest away from a home supply center. The disadvantage of this rule is that a decision has to be made that is not only based on the situation on the board and the orders, but also the history of the game. In the rulebook there is no obligation to keep track of history. Furthermore, when the least recently produced unit was build together with another unit, then it might be difficult to decide which of the units is the least recently produced unit, since build orders are not always written down (especially when other countries may not build). So, in a face to face game there is no guarantee that this rule can be executed properly.

I do not prefer this alternative, because of the problems to apply this rule in face to face games.

If two distances are the same, then the alphabetical order of the areas becomes significant. This raises the issue of the language that should be used. For instance, a dispute may arise when a non-English board is used, but English versions of conference maps and rules were downloaded and printed from the internet.

I prefer that the English language is used by default. However, if the game is played face to face with one or more physical boards (conference maps and rulebooks not taken into account) and

those boards are all in the same language, then I prefer that the language of those boards are used. In such case, a list of English names might not be available. If the game is not played face to face and played completely in an other language then English, then I still prefer that the English language is used. A computer program might have an user interface without any single English word, internally it still may use English names, for instance in a communication protocol. To avoid trouble here, the default language is English and the exception is only with face to face games. Furthermore, in a game that is not face to face, the availability of a list with English names is probably not an issue.

What to do with the alphabetical order when names contain special characters such as spaces, dots and hyphens?

This is probably never an issue. But if so, then I prefer that any special characters such as spaces, dots and hyphens are removed from the name, before determining the alphabetical order.

Finally, it should be mentioned that the full names should be used in determining the alphabetical order and not the abbreviations.

4.D.9. RECEIVING HOLD SUPPORT IN CIVIL DISORDER

When a country is in civil disorder, all its units hold and do not support each other. But what should happen when an other country supports the hold of one of the units?

The following interpretations are possible:

- a. The support fails.

This means that there is a difference between an unordered unit and a unit of a country in civil disorder. This has as consequence that a new issue is introduced. When is a country exactly in civil disorder? In a face to face game this might not be that clear!

- b. The support succeeds.

You may argue that this is just according to the official rules. Since a unit that is not ordered to move may receive support to hold.

I see no reason for introducing new issues for this rather insignificant issue. Therefore, I prefer that the support succeeds (choice b). Also, in a face to face game, a support to hold the armies, as an act of good will, might end the civil disorder.

4.E. MISCELLANEOUS ISSUES

4.E.1 ILLEGAL ORDERS

"legal" is one of the most controversial terms in the rules of Diplomacy. Of course, the same counts for the opposite "illegal". This term has two aspects. First its use and consequences and second the definition which orders are legal and which are not. Both aspects can be disputed. About the consequences the 2000 rulebook says on page 3 (rather similar to the other rulebooks):

A legal order must be followed. An order written by mistake, if legal, must be

followed. An "illegal" or ambiguous order or an order that is judged to be unsuccessful is not followed. A unit that is given an illegal order (or given no order) must stand in place. (The unit holds.)

In this document this is interpreted that to determine whether an order is legal or not is the first step in processing the orders. Any legal orders are added to the set of orders to be adjudicated, while the remaining is thrown away. That means that illegal orders do not have influence whatsoever.

This is considered a workable and sensible usage of the term 'legal', however some other documents do not use it this way. For instance, in the DPTG illegal orders may still have some effect (an illegal move can not be supported in a hold). It should be realized that with such usage the term 'legal' does not have much meaning other than that the order unconditionally fails.

Although it is now clear how the word 'legal' is used in this document, which orders are legal or not, must still be defined. The most significant question of this issue is, whether an impossible move (for instance A Moscow - York), can receive support to hold. Some argue that it is still a move and therefore the unit can not receive hold support. Other people say that it is an illegal order and those should be treated as a hold. This issue is not only about interpreting the orders, but it has a real consequence for the possibilities of the players. If impossible orders can receive hold support, then it means that a holding unit can not refuse hold support (by ordering an impossible move). This can lead to some interesting tactical situations. See for instance the Diplomatic Pouch, Winter 1995 Adjustments, Library of Diplomacy Tactics, Tactics Problems, Problem 3. However, it should be realized that the situation in the given problem is rather theoretical.

The legality of an order has also minor consequences. For instance, in case an order receives a legal and a illegal order. The illegal order must be ignored, so there is no problem by just accepting only the legal order (see also issues [4.D.3](#) and [4.D.4](#) and test case [6.D.28](#)).

Finally, the legality of orders is very important in "no-press games", since illegal orders will be shown as hold orders to other players while legal attempts to move will be shown as they are ordered.

For listing the possible interpretations of 'legal', another term must be introduced. This is the concept of 'valid' orders. A valid order is an order for which a successful attempt can be executed, given all the other orders. More specific, non-matching support are invalid. Non-matching convoy orders or convoy orders that are not part of an ordered convoy route are also invalid. Even so, if a move order requires a convoy and no convoy path is ordered, then the move order is invalid. So, it is quite normal that during the game lot of orders turn out to be invalid. This terminology is consistent with the rulebooks. The 2000 rulebook uses the words 'valid' and 'invalid' first on page 7 in relation with the matching of orders.

Note, that in the definition of 'valid' the word 'attempt' is used. It is not necessary that the order actually succeeds or can succeed. If Portugal is occupied by an army and the Mid-Atlantic Ocean is empty, then a move order from Spain to Portugal can never succeed. However, that move order is perfectly valid.

The following interpretations of 'legality' are possible:

- a. Every order in the right format of an order must be treated as a legal order. Even when the areas of the order are not places on the map (DPTG, although the DPTG uses the word 'legal' differently).
- b. All orders that are in the right format and uses only valid places on the map, are legal. So, the names of the sectors are taken into account, but not the geography or the current situation on the board. This interpretation is supported by the "THE GAMER'S GUIDE TO DIPLOMACY", 2nd edition, march 1979 (clarifications of the 1971 rules). Rod Walker wrote in the "QUESTIONS & ANSWERS" section:

5. Q: What if you get these orders:

GER: A Mun-Mos, A Ruh S A Mun.

RUS: A Sil-Mun, A Boh S A Sil-Mun.

Does the Russian attack succeed?

A: Yes. Even though the German order was probably meant as a joke, it must be taken seriously, no matter how improbable. It's an order to move and a unit so ordered can't be supported in place -- so A Mun is dislodged.

Every so often a player will write a humorous or impossible order for a unit which is supposed to be holding. The question is, do you treat the order as an order to move? My inclination is to draw the line this way: an order to move to any space on the board, no matter how impossible, is an order to move within the meaning of Rule IX.6. This would include such orders as A Mun-Mos, A Mun-Switzerland, A Hol-Nth, F Pie-Ven, F StP(nc)-Mos, and so on.

On the other hand, if the unit is ordered to do some other thing, not involving a space on the board, I regard it as being ordered to hold, and it may be supported in place. Such orders might be: A Mun whistles "Dixie", A Mun-Oz, A Mun loot and pillage, A Mun-Mars (but not A Mun-Mar), and so on. See Spring 1914 in the Sample Game (Section IV) for another example.

If you wish to avoid such hair-splitting you can always prohibit nonsense orders, but that will take some of the fun out of the game.

- c. Only orders that can be valid in a particular game situation (not necessarily the current situation) must be treated as legal orders. So, the geography of the map is taken into account, but not the current situation on the board. This means that a move from York to Holland must be treated as a legal move, even when there is no fleet in the North Sea. This has as consequence that armies in land areas can not refuse hold support by doing an impossible move. However, armies in coastal areas can almost always refuse support with certainty by ordering a move that requires a convoy for which the fleets are currently not in position. This interpretation leads to a few tricky situations. It should be realized that a fleet can't convoy and support at the same time. For instance, an order to a fleet in the Black Sea to support an army from Rumania to Armenia, can never be valid and is illegal with this choice (see test case [6.D.31](#)). Furthermore, a move order for a fleet that does not contain a required coast specification (if

no default coasts are used, see issue [4.B.1](#)), can never be valid and is illegal. Therefore, such fleet can receive hold support (see test [6.D.30](#)). Finally, when an army wants to convoy to an adjacent place with a foreign fleet and choice d has taken for issue [4.A.3](#), then the intent to convoy can't be expressed by ordering another fleet to do the convoy. If that convoy order can't be valid, then it is illegal and not capable to express the intent (see test case [6.G.7](#)).

- d. Only orders that can be valid in the current situation are legal.

So, not only the geography of the map is taken into consideration, but also the current situation of the board. This means that a move from York to Holland is only a legal order when the North Sea is occupied by a fleet. The same tricky situations as in the previous interpretation exist. This interpretation has as consequence that a hold support can not easily be avoided for any unit. This is in line with the 2000 rulebook. On page 7: "Support can be given without consent and cannot be refused!". Although, maybe the writer meant that when the orders are made public, players can not choose which supports they want and which they don't want.

Interpretation a has as disadvantage that almost every sentence that contains a hyphen must be treated as a legal order. For the implementation of a computer program this is a rather undesirable rule.

Interpretations a and b have as disadvantage that in fact three types of orders are distinguished. Legal orders that can be valid, illegal orders that are ignored completely and semi-legal orders that can't be valid but can still have some effect. This division in three types introduces an additional complexity in the settling of some disputes. For instance, in the DPTG, the group of semi-legal orders are called 'illegal'. This makes it unclear whether a unit that is ordered to move to the place it already stands in, can receive a hold support.

A disadvantage of interpretations a, b and c is that an user interface of a computer program may only allow the selection of orders that can be valid. If support can be refused by doing an impossible move, then such user interface should provide a feature to also enter an impossible move, because otherwise the player would be restricted in its possibilities. This would be an awkward feature, for a rather insignificant issue.

The disadvantage of interpretation c and d is that it requires significantly additional coding when implementing a computer program for Diplomacy.

I consider it unimportant whether a unit can refuse a support or not. The situations where this is significant are extremely rare. Given the other arguments and the text of the 2000 rulebook I prefer option d. So, only orders that can be valid in the current situation are legal.

4.E.2. POORLY WRITTEN ORDERS

Something that certainly will happen is that someone writes a poorly written order. The 1971 and 1982 rulebook say (page 3): "A badly written order, which nevertheless can have only one meaning, must be followed". The 2000 rulebook uses only a different term and formulation: "A poorly written order that has only one meaning must be followed".

First of all, it should be realized that some orders are just ambiguous:

Example 1:

A Bur - Pir

In this example it is not clear whether the player wanted to go to Paris or Picardy. Therefore, the army in Burgundy should hold.

However, according to the rules, small spelling mistakes must be accepted. If someone writes the following order:

Example 2:

A Burgundy - Pariz

No human judge would reject this order, because of the misspelling of 'Paris'.

On the other hand, unambiguous impossible orders are never changed:

Example 3:

Austria:

Build F Tyr

Although 'Tyr' is close to 'Tri' and Austria maybe meant to build a fleet in Triest, this order must fail, because 'Tyr' is the correct abbreviation of 'Tyrolia'. The order to build in Tyrolia is not changed in a build in Triest. Of course, for new players some exceptions can be made.

Also, orders are never interpreted by looking to the orders of another country:

Example 4:

England:

A Bre S A Bur - Par

France

A Bur - Pir

The order of England can not clarify the order of France. Even for new players it is maybe better not to allow this.

Until now it was clear how the orders should be treated, however there is gray area where it is disputable whether an order should be accepted or rejected. One could choose one of the following principles when interpreting orders.

- a. No knowledge of the rules of Diplomacy should be used to interpret the orders. In practice this means that only small spelling mistakes are accepted and maybe some other small mistakes.
- b. Each single order is interpreted keeping in mind that the player only wanted to write possible orders (with possible is meant the same as 'legal' in issue [4.E.1](#) choice d). This means that the following orders will not be rejected:

Example 5:

F Rum - Bu.

Since a fleet can not go to Budapest, this would be allowed. A move to the east coast of Bulgaria is attempted.

Example 6:

A Gre S A Ser - Bu.

Since Greece can not support a move to Budapest, this order must be interpreted as a

move support from Serbia to Bulgaria.

- c. Each set of orders is interpreted keeping in mind that the player only wanted to write a full set of possible orders.

The following set of orders would be rejected in the previous choice, but are now accepted:

Example 7:

A Par S F Pir - Bre

A Pir - Bre

'Pir' can be interpreted as 'Picardy' or 'Paris', but since there is already an order for Paris, 'Pir' must be interpreted as 'Picardy'. So, the army in Picardy receives an order to move to Brest.

- d. Each set of orders is interpreted keeping in mind that the player only wanted to write a full set of possible and matching orders. This would result that the following set of orders would not be rejected anymore:

Example 8:

A Ser - Bu

A Gre S A Ser - Bu

The order for the army in Greece must be interpreted as a move support from Serbia to Bulgaria, since a support to Budapest is not possible. Since, in this choice we assume that the player only wants to write matching orders, the order of Serbia is clarified by the order for Greece and must be interpreted as a move to Bulgaria.

I prefer that a best effort is made to interpret the order. So, I prefer the last interpretation (choice d).

Even with the above guidance, some orders are still disputable:

Example 9:

F Rum - Bud(ec).

Some people may reject this order, since 'Bud' is unambiguous and unambiguous orders are not changed. Other people would argue that the fact that a fleet can not go to Budapest, combined with the fact that the coast specification does only apply for Budapest, this order must be interpreted as a move to Bulgaria. The decision is for the judge or in case when there is no judge, in the mercy of the other players.

4.E.3. IMPLICIT ORDERS

An implicit order is an order that is deduced from a support order or convoy order. For instance, when Germany orders its army in Ruhr to support a move from Kiel to Holland, then the move order from Kiel to Holland can be deduced as implicit order. It can be decided that:

- a. Implicit orders are allowed.

Note that an explicit order takes precedence over an implicit order. And a implicit order can never be deduced from orders from another player.

- b. Implicit orders are not allowed.

I think that allowing implicit orders encourages incomplete order sets and that this will lead to more problems and errors. Therefore, I prefer that implicit orders are not allowed (choice b).

4.E.4. PERPETUAL ORDERS

When a player wants to quit the game, he maybe wants to give 'Perpetual Orders'. That are orders that will be repeated every turn. For instance, when Italy has still two armies in Portugal and Spain, he may want to give the order that they will mutual support each other as long as it is possible. It can be decided that:

- a. Perpetual orders are allowed.
- b. Perpetual orders are not allowed.

Since the rulebook contains special rules for a country in civil disorder, it can be argued that perpetual are not allowed according to the rules.

Although I do not really object against perpetual orders, I think allowing perpetual orders should be decided before the game is started or all players should agree during the game. If it was not explicitly allowed and a player wants to give perpetual orders and another players opposes, then I prefer that it is not allowed (choice b).

4.E.5. PROXY ORDERS

A 'Proxy Order' is an order that one does not order a specific unit by oneself, but that another specific player may give the actual order to the unit. It can be decided that:

- a. Proxy orders are allowed, where the player should notify the judge that it wants to proxy a unit. This notification is before the submission of the orders and the player that receives the proxy has knowledge about it.

This type of proxy order, does really change the game. In this way a player can get certainty about the order of a foreign unit, while part of the game is that players have never full certainty about the orders of other players.

- b. Proxy orders are allowed where a proxy order is given as part of the normal order set. This type of proxy orders may look as a rather harmless way of speeding up the negotiations (and therefore the game). However, it is not that simple. Without proxy orders, a player will never give an order that is not in his or her own interest. With proxy orders, the player can be betrayed and his own unit can be moved out of position. See also the remark from the creator of the game, Allan Calhamer, on issue [4.B.4](#) "I think allies should be in evident agreement of the moves." One could argue that in case there is no full trust, one should not give a proxy order. Again, it is not that simple. One player could demand from another player a proxy order and threaten that any other order would be interpreted as a sign of distrust. If proxy orders are not allowed, this can not happen. As you can see, this is an excellent example how procedures can have effect on politics. For this reason, you can not sell your own vote in an election, although it is your own vote. Furthermore, for this reason the law does not allow that a president or minister delegates certain powers.
- c. Proxy orders are not allowed.

A player that proposes to allow proxy orders, during the game, may have a complex diplomatic plan. Therefore, I think proxy orders should only be allowed when this has been decided before the game started. Since, proxy orders are not according to mechanics of order writing as described in the rulebook, they should not be allowed by default (choice c).

4.E.6 FLYING DUTCHMAN

A 'Flying Dutchman' is a unit on the board that is illegal. This can be due to an adjudication error or cheating. Since it is not possible to replay previous rounds, the situation has to be corrected on the board. There are numerous ways to handle this situation (for instance, just play until the next adjustment turn).

Allan Calhamer wrote on this issue (in Diplomania, no. 12, August 1966, a copy can be found on 'www.diplomacy-archive.com'):

A variety of rough-and-ready tactics were developed at this time. One was the "Flying Dutchman", which consisted in playing with a piece to which you were not entitled. It was ruled that this practice was legal so long as it was a deception; i.e., any player had a right to demand restoration of the true position, but if moves had intervened, they could not be taken back. It was never clear what the rights were if the deception was discovered during a move.

I prefer that the unit is removed immediately according to the following rules:

- *If the Flying Dutchman was introduced by a misadjudication of the last orders, then the last orders should be readjudicated. For instance, if the last orders contained too many build orders, the extra build order should be handled as in issue [4.D.8](#).*
- *If the Flying Dutchman was not introduced by the last adjudication, but the specific unit that is the Flying Dutchman can still be identified (taking previous turns into account), that unit should be removed.*
- *If a single unit can not be identified as the Flying Dutchman, the civil disorder rules should be applied on all the units that could be the Flying Dutchman.*
- *The principle that an adjudication becomes irreversible when new orders are made public should still be followed. That means that if a Flying Dutchman becomes legal, then no correction should be made. However, if the Flying Dutchman is detected in the adjustment phase, before the adjustment orders are made public and the new number of supply centers would make the Flying Dutchman legal, then the Flying Dutchman should still be removed. The player may build another unit instead.*

5. THE PROCESS OF ADJUDICATION

This chapter is outdated. For better information about making an adjudicator, see the article "The Math of Adjudication" of the Diplomatic Pouch, Spring 2009 Movement. In a bigger update of the DATC this chapter will be rewritten towards that article.

Writing a Diplomacy adjudicator program may look not more difficult than writing a program that checks the moves of a chess game. However, the contrary is true. A Diplomacy adjudicator that passes all test cases as described in this document contains many small and difficult details.

To help with writing an adjudicator program or just with the manual adjudication, the adjudication of Diplomacy is analyzed here. The first step in understanding the adjudication is to understand the principle that a set of orders leads to a set of decisions to be made. One order may lead to multiple decisions to be made. For instance, when a unit is ordered to move, it can be decided that the move fails, but when the move uses a convoy, then it has also to be decided whether the unit has any influence on the area where it was ordered to move.

The second step is to understand that the decisions depend on each other. Certain decisions

can only be made when other decisions are made first. For instance, when the units are ordered to follow each other in a move, then the decision of the unit moves at the end depends on the move decision of the unit at the front.

In the final step an algorithm is constructed. This algorithm is based on the decisions and respects their dependencies. In some other descriptions, such as the DPTG, the notion of "decision" is not described and the algorithm is described directly. This has as disadvantage that it gives no understanding of adjudication and why the algorithm is constructed as it is. Furthermore, with such description it is rather hard to look to alternative algorithms. We will see that there are at least two ways to tackle the problem of an adjudication program.

Note that in the adjudication description some sanity checks are left out. For example a test whether a support order matches with the order of the unit it supports. These are covered by the test cases and are not relevant for the understanding of the process of adjudication.

5.A. OVERVIEW OF ADJUDICATION DECISIONS

There are eight different types of decisions. Each type of decisions is given a name, to refer easily to that decision type. To distinguish the decision type of the other text, the name is given in CAPITALS.

The first three decisions are directly related to the success or failure of an order:

- **MOVE**
Decision will result in 'moves' or 'fails'.
- **SUPPORT**
Decision will result in 'given' or 'cut'.
- **DISLODGE**
Decision will result in 'sustains' or 'dislodged'.

Example:

Italy:

A Tyrolia - Trieste

A Venice Supports A Tyrolia - Trieste

Austria:

F Trieste Hold

At the end of adjudication, the MOVE decision of Tyrolia is 'moves', the SUPPORT decision of Venice is 'given' and the DISLODGE decision of the army in Trieste is 'dislodged'.

When a unit tries to dislodge another unit, then the strength of the move must be calculated and if that strength is larger than the hold strength of the other unit, then the move of the unit succeeds. So, the following two decision types are needed:

- **ATTACK STRENGTH**
For each unit ordered to move, the strength to attack. A decision that results in a value equal or greater than zero.
- **HOLD STRENGTH**
For each area on the board the strength to prevent that other units move to that area. A decision that results in a value equal or greater than zero.

Both ATTACK STRENGTH and HOLD STRENGTH are numerical decisions, because the result of the decision is a number.

In the previous example the ATTACK STRENGTH of the army in Tyrolia is two, while the HOLD STRENGTH of the army in Trieste is one.

A unit can not dislodge a unit of the same player. Also supports to a foreign unit can not be used to dislodge an own unit. However, these supports can be used to prevent that another unit enters the area. This strength can be greater than ATTACK STRENGTH and must also be calculated:

- PREVENT STRENGTH

A numerical decision for each unit ordered to move. It is the strength to prevent other units to move to the area where it is ordered to move. A decision that results in a value equal or greater than zero.

Example:

Austria:

A Vienna - Tyrolia

A Tyrolia - Munich

A Trieste Supports A Vienna - Tyrolia

Germany:

A Munich Supports A Venice - Tyrolia

A Venice - Tyrolia

The ATTACK STRENGTH of the army in Vienna is zero, because it can not dislodge its own unit in Tyrolia. However, the PREVENT STRENGTH of the army in Vienna is two, which prevents that the move of the German army in Venice with an ATTACK STRENGTH of two succeeds.

When a unit is dislodged in a head to head battle, then the unit has no effect anymore on the area it was ordered to move. This means that the PREVENT STRENGTH is zero. However, it is still required to calculate the strength that prevents the opposite unit in the head to head battle to move. This value can be greater than ATTACK STRENGTH since all support has to be calculated. Therefore a separate numerical decision is necessary:

- DEFEND STRENGTH

For each unit ordered to move in a head to head battle, the strength to defend its own area from the other unit of the head to head battle to enter. A decision that results in a value equal or greater than zero.

Example:

France:

A Belgium Supports A Burgundy - Ruhr

A Holland Supports A Burgundy - Ruhr

A Burgundy - Ruhr

A Munich Supports A Ruhr - Burgundy

A Marseilles - Burgundy

Germany:

A Ruhr - Burgundy

In this example the French army in Munich supports the move of the German army in Ruhr instead of the French army in Burgundy. This makes that the ATTACK STRENGTH, the

PREVENT STRENGTH and the DEFEND STRENGTH of the German army in Ruhr are all different. The ATTACK STRENGTH is one, because the French support should not be counted for the attack. The PREVENT STRENGTH is zero, because it is dislodged by the French army in Burgundy and therefore it can not prevent the army in Marseilles to go to Burgundy. However, the DEFEND STRENGTH contains all supports and is therefore two. Still this DEFEND STRENGTH is insufficient in the head to head battle, since the French army in Burgundy has an ATTACK STRENGTH of three.

It is important to understand the difference between PREVENT STRENGTH and DEFEND STRENGTH. In some algorithms this is calculated by the same routine. The returned strength of such routine depends on the moment in the adjudication process. However, in this analysis decisions are defined independent from the moment in the adjudication process and therefore these two strengths needs to be distinguished.

Finally, when an army is ordered to move and the move will be convoyed, it has to be decided whether the convoy will succeed:

- **PATH**

For each unit ordered to move, the decision whether there is a path from the source to the destination. This decision will result in 'path' or 'no path'. When the move is without any convoy, the decision always results in 'path'.

Example:

England:

A Yorkshire - Belgium

F North Sea Convoys A Yorkshire - Belgium

Germany:

F Holland Supports F Denmark - North Sea

F Denmark - North Sea

The fleet in the North Sea is dislodged, therefore the PATH decision of the Yorkshire order is 'no path'. The PATH decisions of non-convoying units are always 'path'. In this case the PATH decisions of the moving fleet in Denmark is 'path'.

5.B. PRECISE DESCRIPTION OF MAKING DECISIONS

Before the description of how the different decisions must precisely be made, the notion of 'undecided' must be introduced. In the examples of the previous section the final result of decisions were given. But during the adjudication, decisions are made one by one and it must be possible to distinguish between decisions that are already made and decisions that are not made yet. This is simply achieved by introducing an 'undecided' status for the decisions that have two possible outcomes. So, a MOVE decision can have the status 'moves', 'fails' or 'undecided'. The decisions SUPPORT, DISLODGE and PATH decisions can also have the status 'undecided'. For the numerical decisions two values are administrated. The minimum values and the maximum values. The final result will be somewhere in the interval between the minimum and maximum value. During adjudication this interval will become smaller. The minimum values can only increase, while the maximum can only decrease. When the minimum and maximum value of a decision become equal, then the decision is fully made.

Initially all numerical decisions have a minimum value of zero and a maximum value of infinity.

The remaining decisions are initially 'undecided'.

5.B.1. MOVE DECISION

A MOVE decision of a unit ordered to move results in 'moves' when:

The minimum of the ATTACK STRENGTH is larger than the maximum of the DEFEND STRENGTH of the opposing unit in case of a head to head battle or otherwise larger than the maximum of the HOLD STRENGTH of the attacked area. And in all cases the minimum of the ATTACK STRENGTH is larger than the maximum of the PREVENT STRENGTH of all of the units moving to the same area.

A MOVE decision of a unit ordered to move results in 'fails' when:

The maximum of the ATTACK STRENGTH is smaller than or equal to the minimum of the DEFEND STRENGTH of the opposing unit in case of a head to head battle or otherwise smaller than or equal to the minimum of the HOLD STRENGTH of the attacked area. Or the maximum of the ATTACK STRENGTH is smaller than or equal to the minimum of the PREVENT STRENGTH of at least one of the units moving to the same area.

In all other cases a MOVE decision of a unit ordered to move remains 'undecided'.

This MOVE decision has only one 'fails' result. For proper reporting of the adjudication result to the players, more information might be appropriate. For instance, if a move fails due to a move of another unit to the same area, this could be reported as 'bounce'. Also the exact bouncing unit might be listed in the report. This can be implemented by introducing different 'fails' as result of the MOVE decision result. Or this information could be part of the 'fails' result. Anyway, these ways of failure should be treated the same in other parts of the adjudication.

5.B.2. SUPPORT DECISION

A SUPPORT decision of a unit ordered to support results in 'given' when:

All units ordered to move to the area of the supporting unit have a maximum ATTACK STRENGTH decision with value zero. If the support order is a move support, then the unit that is on the area where the move is directed, should not be taken into account. Furthermore, the SUPPORT decision can only be 'given' when the DISLODGE decision of the unit has status 'sustains' (dislodge rule).

A SUPPORT decision of a unit ordered to support results in 'cut' when:

At least one of the units ordered to move to the area of the supporting unit has a minimum ATTACK STRENGTH of one or more. Again, if the support order is a move support, then the unit that is on the area where the move is directed, should not be taken into account. Finally, the SUPPORT decisions also results in 'cut' when the DISLODGE decision of the has status 'dislodged' (dislodge rule).

In all other cases a SUPPORT decision of a unit ordered to support remains 'undecided'.

5.B.3. DISLODGE DECISION

A DISLODGE decision of a unit results in 'sustains' when:

The unit is ordered to move and the MOVE decision has status 'moves'. Or when all units that has ordered to move to the area of the unit have a MOVE decision with status 'fails'.

A DISLODGE decision of a unit results in 'dislodged' when:

There is a unit with a move order to the area of the unit, for which the MOVE decision has

status 'moves' and in case the unit (of the DISLODGE decision) was ordered to move has a MOVE decision with status 'fails'.

In all other cases a DISLODGE decision of a unit remains 'undecided'.

5.B.4. ATTACK STRENGTH DECISION

The minimum of a ATTACK STRENGTH decision of a unit ordered to move must be calculated as follows:

In case the PATH decision of the unit is 'no path' or 'undecided' then the minimum of the ATTACK STRENGTH is zero.

Otherwise, if the move is part of a head to head battle or the area to which the move is directed contains a unit without move order or the area to which the move is directed contains a unit with a move for which the status of the MOVE decision is 'fails' or 'undecided' then:

The minimum ATTACK STRENGTH is zero when the moving unit is of the same nationality of the unit that is attacked or otherwise, one plus the number of orders that support this move and for which the status of the SUPPORT decision is 'given'. But only the support orders of units of different nationality of the attacked unit should be counted.

else:

The minimum ATTACK STRENGTH is one plus the number of orders that support this move and for which the status of the SUPPORT decision is 'given'.

The maximum of a ATTACK STRENGTH decision of a unit ordered to move must be calculated as follows:

In case the PATH decision of the unit is 'no path' then the maximum of the ATTACK STRENGTH is zero.

Otherwise, if the move is part of a head to head battle or the area to which the move is directed contains a unit without move order or the area to which the move is directed contains a unit with a move order for which the status of the MOVE decisions is 'fails' then:

The maximum ATTACK STRENGTH is zero when the moving unit is of the same nationality of the unit that is attacked or otherwise, one plus the number of orders that support this moves and for which the status of the SUPPORT decision is 'given' or 'undecided'. But only the support orders of unit of different nationality of the attacked unit should be counted.

else:

The maximum ATTACK STRENGTH is one plus the number of orders that support this move and for which the status of the SUPPORT decision is 'given' or 'undecided'.

5.B.5. HOLD STRENGTH DECISION

The minimum of a HOLD STRENGTH decision of an area must be calculated as follows:

In case the area is empty, then the minimum HOLD STRENGTH is zero. In case the area contains a unit without a move order, then the minimum HOLD STRENGTH is one plus the number of orders that support this unit and that have a SUPPORT decision with status 'given'. In case the area contains a unit with a move order, then the minimum is zero when

the MOVE decision has status 'moves' or 'undecided' and the minimum is one when the MOVE decision has status 'failed'.

The maximum of a HOLD STRENGTH decision of an area must be calculated as follows:

In case the area is empty, the maximum HOLD STRENGTH is zero. In case the area contains a unit without a move order, then the maximum HOLD STRENGTH is one plus the number of orders that support this unit and that have a SUPPORT decision with status 'given' or 'undecided'. In case the area contains a unit with a move order, then the maximum is zero when the MOVE decision has status 'moves' and the maximum is one when the MOVE decisions has status 'failed' or 'undecided'.

5.B.6. PREVENT STRENGTH DECISION

The minimum of a PREVENT STRENGTH decision of a unit ordered to move must be calculated as follows:

In case the PATH decision of the unit is 'no path' or 'undecided' then the minimum of the PREVENT STRENGTH is zero. Also, when the move is part of a head to head battle and the MOVE decision of the opposing unit has status 'moves' or 'undecided', then the minimum of the PREVENT STRENGTH is also zero. Otherwise, the minimum is one plus the number of orders that support this move and for which the status of the SUPPORT decision is 'given'.

The maximum of a PREVENT STRENGTH decision of a unit ordered to move must be calculated as follows:

In case the PATH decision of the unit is 'no path' then the maximum of the PREVENT STRENGTH is zero. Also, when the move is part of a head to head battle and the MOVE decision of the opposing unit has status 'moves', then the maximum of the PREVENT STRENGTH is also zero. Otherwise, the maximum is one plus the number of orders that support this move and for which the status of the SUPPORT decision is 'given' or 'undecided'.

Note that the PREVENT STRENGTH become zero when the unit is engaged in a head to head battle and the MOVE decision of the opposing unit has status 'moves'. If the condition that the unit is engaged in a head to head battle, is left out, then this may lead to a situation where two units end in the same area (see test cases [6.G.16](#), [6.G.17](#) and [6.G.18](#)).

If issue [4.A.7](#) must be adjudicated according to choice a, then it should not be checked whether the unit is engaged in a head to head battle. Instead the PREVENT STRENGTH is zero when the MOVE decision of the same unit has status 'fails' and the MOVE decision of the opposing unit has status 'moves'.

5.B.7. DEFEND STRENGTH DECISION

The minimum of a DEFEND STRENGTH decision of a unit ordered to move must be calculated as follows:

One plus the number of orders that support this move and for which the status of the SUPPORT decision is 'given'.

The maximum of a DEFEND STRENGTH decision of a unit ordered to move must be calculated as follows:

One plus the number of orders that support this move and for which the status of the SUPPORT decision is 'given' or 'undecided'.

5.B.8. PATH DECISION

A PATH decision of a unit ordered to move results in 'path' when:

The unit does not move by convoy or when there is a path of convoying fleets with matching convoy orders and for which the DISLODGE decision has status 'sustains'.

A PATH decision of a unit ordered to move results in 'no path' when:

The unit moves by convoy and when there is a no path of convoying fleets with matching convoy orders and for which the DISLODGE decision has status 'sustains' or 'undecided'.

In all other cases a PATH decision of a unit ordered to move remains 'undecided'.

Note that calculating the PATH decision does not require that a search algorithm is started twice. Probably a depth-first search algorithm is the easiest way for programming. In such algorithm a search function is called recursively. Normally, such recursive function would only have two possible outcomes, 'failure' or 'success'. In this case it has three possible outcomes. The recursive function first checks whether it is on the destination and if so, then it returns 'sustains'. Then it checks whether it has already been on the area. If so, then it returns immediately 'no path'. In all other cases the result of all sub-paths (calculated recursively) is combined with the current DISLODGE status of the area.

5.B.9. CIRCULAR MOVEMENT AND PARADOXES

It is possible that during adjudication according to the given prescriptions of making decisions, a situation occurs that no decision can be made anymore while there are still decisions to make. At such moment the board contains a circular movement or convoy paradox. Those situations need special treatment.

The first step in resolving a circular movement or paradox is to determine which decisions are part of the circular movement or the paradox core. This is achieved by listing for each decision the decisions it directly depends on. Decisions that are fully decided are completely left out of this procedure. When these lists are made, these lists are extended with all the indirect decisions dependencies. This is continued until each decision has a list with all direct and indirect (with possible multiple indirections) dependencies. Every list forms a paradox, but the smallest dependency list is a paradox core and only that list should be considered. Note that there are probably more than one dependency lists with an equal and smallest number of dependencies. It is unimportant which one of these lists is selected.

In the second step the dependency list is analyzed. If the list of decisions contains an undecided MOVE decision of a unit that targets a fleet with a convoy order, then there is a convoy disruption paradox. If there is no such decision, then there is a circular movement. Note that if one of the moving units in a circular movement moved with certainty due to a support, then the adjudication of the circular movement would have been resolved in the normal process adjudication.

In the final step the circular movement or paradox is enforced by special rules and the normal decision making process can continue. In case of a circular movement, all the MOVE decisions of the dependency list are resolved to 'moves'. In case of convoy disruption paradox, a convoy paradox rule must be applied on the dependency list. Note that the MOVE decision of the army that convoys is not in the dependency list, since for the paradox only the cutting of support is essential. Therefore only the ATTACK STRENGTH decision of the army that convoys appears in

the dependency list. This is important when applying the Szykman rule or the 'All Hold' rule.

When the Szykman rule is applied, all ATTACK STRENGTH decisions in the dependency list are set to zero for both minimum as maximum. The corresponding MOVE decision is set to failed and the corresponding PREVENT STRENGTH is also to zero for both minimum as maximum.

If you interpret the 2000 rulebook in such that in some very rare cases the attacked unit is dislodged by the convoying army (see discussion in issue [4.A.2](#), and test case [6.F.17](#)), then first the dependency list must be searched for a SUPPORT decision of a support order of an attack on a convoying fleet that convoys an army to the area of the supporting unit. That SUPPORT decision must be set to 'given'. If no such decision could be found, then the 2000 rulebook has no resolution and a fallback rule must be used such as the Szykman rule or the 'All Hold' rule.

Variant rules may introduce new kind of paradoxes (see test cases [9.E](#), [9.F](#) and [9.G](#)). If those rules are included, then it is dangerous to conclude that there is a circular movement in case the dependency list does not contain a convoy disruption paradox. It is better to check if the moving units of all the MOVE decisions of the dependency list are part of one single circular movement. If so, these units advance, but if not then a fallback paradox rule must be applied. In this fallback scenario all the MOVE decisions of the dependency list resolve in 'fails' and all the SUPPORT decisions of the list resolve in 'cut'.

5.B.10. HEAD TO HEAD BATTLES DEPENDENT ON ADJUDICATION

In most interpretations of the rules, it can directly determined whether two units that move in opposite direction will fight a head to head battle or try to swap (by using a convoy). This can be decided before any adjudication. However, if issue [4.A.3](#) is interpreted according to choice c, then the convoy route to the adjacent place must be adjudicated before it can be decided whether the moves will result in a head to head battle.

The adjudication of this has some additional complexities. It can be implemented by introducing a new decision 'HEAD TO HEAD BATTLE'. This decision should have as result whether two units that move in opposite direction, will fight a head to head battle or not. The MOVE decision, the ATTACK STRENGTH decision and the PREVENT STRENGTH decision must be changed such that they use the HEAD TO HEAD BATTLE decision.

For the implementation of the HEAD TO HEAD BATTLE decision, the 'CONVOY PATH' decision must be introduced. When there is a successful convoy path for at least one of the opposing units, then there is no head to head battle, otherwise the units will fight a head to head battle. The CONVOY PATH decision is similar to the PATH decision, but will only result in 'path' when the unit can move to the destination by using at least one convoying fleet. To avoid duplication of code, the implementation of the PATH decision can be simplified by using the CONVOY PATH decision.

5.B.11. RETREAT

To which areas a unit may retreat, must be calculated after adjudicating the main phase, because it depends on the orders given in the main phase. It is insufficient to just mark the areas to which a retreated is possible, since there are situation where one unit may retreat to a certain,

while another may not (see test case [6.H.10](#)). So, for every dislodged unit a list of areas must be created to which it may retreat.

How a retreat must be calculated is based on the principle as worded in the rulebook: "A dislodged unit must retreat to an adjacent province that it could ordinarily move to if unopposed by other units." That means that the logic of a retreat is similar to the MOVE decision. A unit may retreat to an area if the unit may move to the area directly (so, without convoy), the PREVENT STRENGTH of all units that attempted to move to the area is zero, the HOLD STRENGTH of the area is zero and there is no unit that moved successfully in the opposite direction. All these calculations must be made as part of the adjudication of the main phase.

5.C. FROM DECISIONS TO ALGORITHM

In the final step the principle of decisions is transformed into an algorithm. Whatever for algorithm is made, the decisions will always be part of the algorithm one way or another. This is for the simple reason that the decisions are directly based on the rules. However, there are two fundamental different ways to deal with the dependencies of the decisions:

- A sequence based algorithm.
- A decision based algorithm.

In a sequence based algorithm, the program tackles the problem of dependencies by making the decisions in a hard programmed sequence. The sequence guarantees that when a decision is made, any other dependent decisions are already decided. For instance, the algorithm will probably start by cutting supports. Then it will try to resolve moves that will dislodge a convoying fleet and finally it will resolve the moves. If a unit moves to an area where a second unit is ordered to move, it will first resolve the move of the second unit. This can be implemented by a recursive function.

The advantage of the sequence based algorithm is that it does not need to have the administration of all the decisions. The decisions do not require an 'undecided' state. A support decision is 'given' until it is decided to be 'cut'. The sequence in which the decisions are made, will guarantee that this will lead to the correct results. It is not too difficult to make a sequence based algorithm that handles the most common situations correctly. However, for a perfect adjudicator that passes all test cases in this document and that handles second order paradoxes according to the Szykman rule, a sequence based algorithm becomes very complex. The DPTG is an example of a sequence based algorithm and it shows the difficulties of handling convoy paradoxes in a sequence based algorithm.

The alternative is the decision based algorithm. A decision based algorithm starts with setting up the administration of the decisions based on the orders. Initially all decisions are undecided. Then the algorithm tries to make decisions one by one without paying attention to the sequence. If a decision can not be made due to a dependency on another decision, then the algorithm just goes to the next decision. When all decisions are handled once this way, it just starts all over again. It will repeat this until all decisions are made. It is also possible that there are still decisions to be made, but none of them can be decided. The algorithm detects it, resolved the circular movement or applies a paradox rule on the remaining decisions and restarts the decision process.

The key principle in a decision based algorithm, is that when a decision is made, then that

decision is final. This principle is necessary because of the undefined sequence in which decisions are made. If a decision would be changed, then a second decision that is based on that decision would have a result dependent if the decision would be made before or after the change. So, in such case the result becomes dependent on the (undefined) sequence and therefore there is no guarantee that the result will be correct.

The advantage of a decision based algorithm above a sequence based algorithm is that the logic of the sequence does not need to be programmed. The disadvantage is that all decisions have to be programmed twice. Once for deciding if the decision fails (or the minimum in case of a numerical decision) and once for deciding if the decision succeeds (or the maximum in case of a numerical decision). But still, if a fully correct algorithm is required it is probably much easier to write a decision based algorithm than a sequence based algorithm. The decisions are close to the original text of the rulebook. It is also easier to add variant rules since any impact on the sequence does not need to be programmed. A second disadvantage of a decision based algorithm is the additional memory administration of the decisions, however as we will see, this can be simplified.

In a program with a decision based algorithm, two functions for each decision can be recognized. One function that returns the current status of the decision and another function that updates it. For instance the functions for the ATTACK STRENGTH decision would look like:

```
current_ATTACK_STRENGTH(  
    in  order_type    order,  
    out integer       min_strength,  
    out integer       max_strength)
```

```
boolean update_ATTACK_STRENGTH(  
    in  order_type    order)
```

The update function contains the logic as described in section [5.B](#). It returns a boolean value. This value is set when the status of the decision has been changed. If in an iteration there is no change in the status of the decisions, then all the decision are made or a paradox is detected.

For breaking a circular movement or a paradox, the dependencies has to be calculated. Each decision should have a list of dependencies. When this process is started, these lists are set to empty. Furthermore, for each decision two additional function are required. One function that adds the current dependencies of a decision to a list. It also adds itself to the list. The other function updates the dependencies of a decision. For the ATTACK STRENGTH decision this would look like:

```
boolean add_dependencies_ATTACK_STRENGTH(  
    in  order_type    order,  
    inout decision_list_type dependencies)
```

```
boolean update_dependencies_ATTACK_STRENGTH(  
    in  order_type    order)
```

Decisions that are fully decided, are not added to the dependency lists. Both functions return a boolean value. This value is set when anything is changed to the dependency list. For calculating the dependencies, the update functions should repeatedly called until there are no changes in the dependencies anymore. The decisions of the circular movement or paradox are located by taking the decision with the smallest dependency list. The decisions of the

dependency list should be further examined (see section [5.B.9](#)). After the circular movement or paradox is resolved, the program should continue making decisions in the normal way.

5.D. SIMPLIFICATIONS AND OPTIMIZATIONS

The program as just described follows the principles of the decisions in a straight forward way. However, some simplifications and optimizations can be made. It is not necessary to have all kinds of data structures for administrating the decisions. For most decisions the 'current' function can be changed in such way that it calculates the result, rather than taking the information out of data structures. This means that are no data structures for that decision type required and the logic of the 'update' function is moved to the 'current' function. The 'update' function itself becomes obsolete. Only the administration of the MOVE and SUPPORT decisions should remain. But this administration is very simple and is probably already there.

If this simplification is chosen, then here is a small issue concerning paradox resolving. When the Szykman rule is applied, then the decisions of type ATTACK STRENGTH and PREVENT STRENGTH are set to zero. With the simplification this is not possible anymore, since there is no administration of these decisions. Instead the decision of the support of the attacked unit should set to 'given' and the MOVE decision should be set to 'failed'. For the standard rules this will give the same results, but theoretically a variant rule could be designed where this makes a difference. This can be prevented by adding a flag to the move order and let the 'current' functions of the ATTACK STRENGTH and PREVENT STRENGTH check on this flag. However, this is rather overzealous, since it is unlikely that such variant rule would be invented.

The simplification is probably more efficient than the original. In some cases a decision might be calculated more than once, but this is compensated by the following facts:

- There is less effort in setting up the decision data.
- Some decisions (such as PREVENT STRENGTH) are only calculated when required.
- There are less decisions administrated and that means that in most cases there are less iterations necessary for the final result (for instance, simple support cuts will be decided in the first iteration, while without simplification this is only certain in the second iteration when all minimum values of the 'ATTACK STRENGTH' decisions will have at least the required value of one for a support cut).

The program can be further optimized by trying to calculate the MOVE and SUPPORT decisions when they are requested and when they are still undecided. This means that the 'current' function and 'update' function are also merged for the MOVE and SUPPORT decisions. This leads to recursive calls and without precaution this may lead to an endless recursion. This is prevented by introducing a flag for each MOVE and SUPPORT decision (it is not necessary to introduce this flag for the other decisions). When such decision is calculated, the flag is set and when such decision is requested it will not start calculating it when the flag is already set.

If an endless recursion is detected, then it is not necessarily a paradox. Consider the following situation:

France:

A Gascony - Burgundy

A Ruhr Supports A Gascony - Burgundy

Germany:

A Burgundy Supports A Kiel - Ruhr
A Kiel - Ruhr

When the French order of the army in Gascony is calculated, the following calls will be made:

MOVE(Gascony - Burgundy)
ATTACK STRENGTH(Gascony - Burgundy)
SUPPORT(Ruhr Support A Gascony - Burgundy)
ATTACK STRENGTH(Kiel - Ruhr)
SUPPORT(Burgundy Supports A Kiel - Ruhr)
ATTACK STRENGTH(Gascony - Burgundy)
SUPPORT(Ruhr Support A Gascony - Burgundy)
...

In the last call for the calculation of the success of the support of the army Ruhr, an endless recursion is detected (there is no endless recursion detection in the routine that calculates the ATTACK STRENGTH). In this situation the function must give as result that this support is still 'undecided'. However, this does not mean that the adjudication fails. The last ATTACK STRENGTH call for the army in Gascony will have a minimum result of 1 and a maximum result of 2. This is enough to decide that the SUPPORT of the army in Burgundy fails. All the other decisions can then be made.

A similar situation can occur with circular movement. When one of the moving units is supported and moves unconditionally or one of the moving units is blocked by a unit not part of the circular movement, then an endless recursion will be detected due to circular movement, but finally all the decisions will still be adjudicated.

An interesting case is the example on page 16 of the 2000 rulebook:

France:
A Tunis - Naples
F Tyrrhenian Sea Convoys A Tunis - Naples
F Ionian Sea Convoys A Tunis - Naples

Italy:
F Naples Supports F Rome - Tyrrhenian Sea
F Rome - Tyrrhenian Sea

For the army in Tunis, the PATH decision has to be calculated. For this calculation a search routine will be used and this routine may first try the route via the Tyrrhenian Sea. This leads to the following calls:

MOVE(Tunis - Naples)
ATTACK STRENGTH(Tunis - Naples)
PATH(Tunis - Naples)
DISLODGE(Tyrrhenian Sea)
MOVE(Rome - Tyrrhenian Sea)
ATTACK STRENGTH(Rome - Tyrrhenian Sea)
SUPPORT(Naples Supports
F Rome - Tyrrhenian Sea)
ATTACK STRENGTH(Tunis - Naples)
PATH(Tunis - Naples)
DISLODGE(Tyrrhenian Sea)
MOVE(Rome - Tyrrhenian Sea)

Finally, in the last MOVE call, the endless recursions is detected. Still, this does not lead to a

failure in adjudication, since the routine that calculates the PATH decisions will eventually try the route via Ionian Sea and this opens the possibility for making the other decisions.

In case there is no way to make a decision anymore, then the mechanism of endless recursion detection can also be used to determine the paradox core. This simplifies the algorithm further, since it eliminates the need for calculating and administration of dependencies lists. For each MOVE and SUPPORT decision not only a flag must be maintained whether this decision has already been attempted to calculate in the recursion, but also an identification that refers to the previous calculation of the MOVE or SUPPORT decision in the recursion. When the endless recursion is detected, then these identification can be traversed until the identification is encountered of the decision where the endless recursion is detected (you should not use all the decisions currently be calculated in the recursion, but only those decisions that are circular dependent). This set of decisions form a circular movement or form the paradox core. These can be treated as described earlier. Since these decisions are now made, they should not be altered when the functions return out of the recursion. Therefore there should be a way to signal that a paradox or circular movement has been resolved and that no further decisions should be made when returning out of the recursion. Another way is that the MOVE and SUPPORT decision functions recheck the status of the decision after they have called other functions.

Resolving circular movement and paradoxes this way, may only be done when adjudication really fails. When an endless recursion is detected, then it must be clear whether adjudication should just continue or whether circular movement or paradoxes should be handled. To distinguish these two situations an additional flag is needed. This flag can be a global variable. The main routine of adjudication becomes something like this:

```
LOOP i OVER ALL SUPPORT AND MOVE ORDERS
  WHILE ORDER i IS UNDECIDED
    # Calculate order without attempting to
    # handle circular movement or paradoxes.
    BREAK_CIRCULAR_MOVEMENT_OR_PARADOX = FALSE
    CALCULATE ORDER i
    IF ORDER i IS UNDECIDED
      # Adjudication has now locked up. There is
      # a circular movement or paradox. Retry the
      # same order, but now with handling of
      # circular movement and paradoxes.
      BREAK_CIRCULAR_MOVEMENT_OR_PARADOX = TRUE
      CALCULATE ORDER i
    END IF
  END WHILE
END LOOP
```

This trick of determining circular movement or the paradox core works only, because circular movement or the paradox core consists always of a single circular dependency list. If a paradox sensitive variant rule is added that introduces more complex paradox cores, then this trick won't work. In such case the original method of calculating the smallest dependency list should be used.

As you can see, with these simplifications the program is not that large. Besides the main function and some pre-processing functions, you have only one function for each decision. The administration is also minimal. For the MOVE and SUPPORT orders a flag for endless recursions detection and identification that refers to the previous MOVE or SUPPORT order in

the recursion.

5.E. PERFORMANCE

A comparison of execution speed with a sequence based algorithm is difficult to give. Both ways have their advantages and disadvantages in execution speed. Finally, it should be noted that this is only important for artificial intelligence programs, because for normal adjudication the time is not noticeable even on a slow computer.

If execution speed is really important, then one should optimize the most common situation. Sometimes programmers try to optimize the rare situations, however this is useless and may in fact lead to slower programs, because of the additional logic. The decision based algorithm is rather inefficient in the most common support cuts. Since most adjudication decisions consist of simple support and move orders, this is probably a good candidate for optimization. Before the decision algorithm is started, set all the support orders on 'given'. Then loop on all move orders. If a move order is to an area with a unit with a support order, then this support is 'cut' when the move is direct (so, without convoy) and the support is not for a move to the starting position of the move. Otherwise, the support is set to 'undecided' when it was not yet 'cut'.

This pre-processing phase will decide most of the SUPPORT decisions. Still, it should be realized that this speed optimization will slow down the adjudication process in case there are no support orders.

6. TEST CASES

6.A. TEST CASES, BASIC CHECKS

6.A.1 TEST CASE, MOVING TO AN AREA THAT IS NOT A NEIGHBOUR

Check if an illegal move (without convoy) will fail.

England:
F North Sea - Picardy

Order should fail.

6.A.2. TEST CASE, MOVE ARMY TO SEA

Check if an army could not be moved to open sea.

England:
A Liverpool - Irish Sea

Order should fail.

6.A.3. TEST CASE, MOVE FLEET TO LAND

Check whether a fleet can not move to land.

Germany:
F Kiel - Munich

Order should fail.

6.A.4. TEST CASE, MOVE TO OWN SECTOR

Moving to the same sector is an illegal move (2000 rulebook, page 4, "An Army can be ordered to move into an adjacent inland or coastal province.").

Germany:
F Kiel - Kiel

Program should not crash.

6.A.5. TEST CASE, MOVE TO OWN SECTOR WITH CONVOY

Moving to the same sector is still illegal with convoy (2000 rulebook, page 4, "Note: An Army can move across water provinces from one coastal province to another...").

England:
F North Sea Convoys A Yorkshire - Yorkshire
A Yorkshire - Yorkshire
A Liverpool Supports A Yorkshire - Yorkshire

Germany:
F London - Yorkshire
A Wales Supports F London - Yorkshire

The move of the army in Yorkshire is illegal. This makes the support of Liverpool also illegal and without the support, the Germans have a stronger force. The army in London dislodges the army in Yorkshire.

6.A.6. TEST CASE, ORDERING A UNIT OF ANOTHER COUNTRY

Check whether someone can not order a unit that is not his own unit.

England has a fleet in London.

Germany:
F London - North Sea

Order should fail.

6.A.7. TEST CASE, ONLY ARMIES CAN BE CONVOYED

A fleet can not be convoyed.

England:
F London - Belgium
F North Sea Convoys A London - Belgium

Move from London to Belgium should fail.

6.A.8. TEST CASE, SUPPORT TO HOLD YOURSELF IS NOT POSSIBLE

An army can not get an additional hold power by supporting itself.

Italy:

A Venice - Trieste

A Tyrolia Supports A Venice - Trieste

Austria:

F Trieste Supports F Trieste

The army in Trieste should be dislodged.

6.A.9. TEST CASE, FLEETS MUST FOLLOW COAST IF NOT ON SEA

If two places are adjacent, that does not mean that a fleet can move between those two places. An implementation that only holds one list of adjacent places for each place, is incorrect.

Italy:

F Rome - Venice

Move fails. An army can go from Rome to Venice, but a fleet can not.

6.A.10. TEST CASE, SUPPORT ON UNREACHABLE DESTINATION NOT POSSIBLE

The destination of the move that is supported must be reachable by the supporting unit.

Austria:

A Venice Hold

Italy:

F Rome Supports A Apulia - Venice

A Apulia - Venice

The support of Rome is illegal, because Venice can not be reached from Rome by a fleet. Venice is not dislodged.

6.A.11. TEST CASE, SIMPLE BOUNCE

Two armies bouncing on each other.

Austria:

A Vienna - Tyrolia

Italy:

A Venice - Tyrolia

The two units bounce.

6.A.12. TEST CASE, BOUNCE OF THREE UNITS

If three units move to the same place, the adjudicator should not bounce the first two units and then let the third unit go to the now open place.

Austria:

A Vienna - Tyrolia

Germany:
A Munich - Tyrolia

Italy:
A Venice - Tyrolia

The three units bounce.

6.B. TEST CASES, COASTAL ISSUES

6.B.1. TEST CASE, MOVING WITH UNSPECIFIED COAST WHEN COAST IS NECESSARY

Coast is significant in this case:

France:
F Portugal - Spain

Some adjudicators take a default coast (see issue [4.B.1](#)).

I prefer that the move fails.

6.B.2. TEST CASE, MOVING WITH UNSPECIFIED COAST WHEN COAST IS NOT NECESSARY

There is only one coast possible in this case:

France:
F Gascony - Spain

Since the North Coast is the only coast that can be reached, it seems logical that the a move is attempted to the north coast of Spain. Some adjudicators require that a coast is also specified in this case and will decide that the move fails or take a default coast (see issue [4.B.2](#)).

I prefer that an attempt is made to the only possible coast, the north coast of Spain.

6.B.3. TEST CASE, MOVING WITH WRONG COAST WHEN COAST IS NOT NECESSARY

If only one coast is possible, but the wrong coast can be specified.

France:
F Gascony - Spain(sc)

If the rules are played very clemently, a move will be attempted to the north coast of Spain. However, since this order is very clear and precise, it is more common that the move fails (see issue [4.B.3](#)).

I prefer that the move fails.

6.B.4. TEST CASE, SUPPORT TO UNREACHABLE COAST ALLOWED

A fleet can give support to a coast where it can not go.

France:

F Gascony - Spain(nc)
F Marseilles Supports F Gascony - Spain(nc)

Italy:
F Western Mediterranean - Spain(sc)

Although the fleet in Marseilles can not go to the north coast it can still support targeting the north coast. So, the support is successful, the move of the fleet in Gascony succeeds and the move of the Italian fleet fails.

6.B.5. TEST CASE, SUPPORT FROM UNREACHABLE COAST NOT ALLOWED

A fleet can not give support to an area that can not be reached from the current coast of the fleet.

France:
F Marseilles - Gulf of Lyon
F Spain(nc) Supports F Marseilles - Gulf of Lyon

Italy:
F Gulf of Lyon Hold

The Gulf of Lyon can not be reached from the North Coast of Spain. Therefore, the support of Spain is invalid and the fleet in the Gulf of Lyon is not dislodged.

6.B.6. TEST CASE, SUPPORT CAN BE CUT WITH OTHER COAST

Support can be cut from the other coast.

England:
F Irish Sea Supports F North Atlantic Ocean - Mid-Atlantic Ocean
F North Atlantic Ocean - Mid-Atlantic Ocean

France:
F Spain(nc) Supports F Mid-Atlantic Ocean
F Mid-Atlantic Ocean Hold

Italy:
F Gulf of Lyon - Spain(sc)

The Italian fleet in the Gulf of Lyon will cut the support in Spain. That means that the French fleet in the Mid Atlantic Ocean will be dislodged by the English fleet in the North Atlantic Ocean.

6.B.7. TEST CASE, SUPPORTING WITH UNSPECIFIED COAST

Most house rules accept support orders without coast specification.

France:
F Portugal Supports F Mid-Atlantic Ocean - Spain
F Mid-Atlantic Ocean - Spain(nc)

Italy:
F Gulf of Lyon Supports F Western Mediterranean - Spain(sc)
F Western Mediterranean - Spain(sc)

See issue [4.B.4](#). If coasts are not required in support orders, then the support of Portugal is successful. This means that the Italian fleet in the Western Mediterranean bounces. Some adjudicators may not accept a support order without coast (the support will fail or a default coast is taken). In that case the support order of Portugal fails (in case of a default coast the coast will probably be the south coast) and the Italian fleet in the Western Mediterranean will successfully move.

I prefer that the support succeeds and the Italian fleet in the Western Mediterranean bounces.

6.B.8. TEST CASE, SUPPORTING WITH UNSPECIFIED COAST WHEN ONLY ONE COAST IS POSSIBLE

Some hardliners require a coast in a support order even when only one coast is possible.

France:

F Portugal Supports F Gascony - Spain

F Gascony - Spain(nc)

Italy:

F Gulf of Lyon Supports F Western Mediterranean - Spain(sc)

F Western Mediterranean - Spain(sc)

See issue [4.B.4](#). If coasts are not required in support orders, then the support of Portugal is successful. This means that the Italian fleet in the Western Mediterranean bounces. Some adjudicators may not accept a support order without coast (the support will fail or a default coast is taken). In that case the support order of Portugal fails (in case of a default coast the coast will probably be the south coast) and the Italian fleet in the Western Mediterranean will successfully move.

I prefer that supporting without coasts should be allowed. So I prefer that the support of Portugal is successful and that the Italian fleet in the Western Mediterranean bounces.

6.B.9. TEST CASE, SUPPORTING WITH WRONG COAST

Coasts can be specified in a support, but the result depends on the house rules.

France:

F Portugal Supports F Mid-Atlantic Ocean - Spain(nc)

F Mid-Atlantic Ocean - Spain(sc)

Italy:

F Gulf of Lyon Supports F Western Mediterranean - Spain(sc)

F Western Mediterranean - Spain(sc)

See issue [4.B.4](#). If it is required that the coast matches, then the support of the French fleet in the Mid-Atlantic Ocean fails and that the Italian fleet in the Western Mediterranean moves successfully. Some adjudicators ignore the coasts in support orders. In that case, the move of the Italian fleet bounces.

I prefer that the support fails and that the Italian fleet in the Western Mediterranean moves successfully.

6.B.10. TEST CASE, UNIT ORDERED WITH WRONG COAST

A player might specify the wrong coast for the ordered unit.

France has a fleet on the south coast of Spain and orders:

France:

F Spain(nc) - Gulf of Lyon

If only perfect orders are accepted, then the move will fail, but since the coast for the ordered unit has no purpose, it might also be ignored (see issue [4.B.5](#)).

I prefer that a move will be attempted.

6.B.11. TEST CASE, COAST CAN NOT BE ORDERED TO CHANGE

The coast can not change by just ordering the other coast.

France has a fleet on the north coast of Spain and orders:

France:

F Spain(sc) - Gulf of Lyon

The move fails.

6.B.12. TEST CASE, ARMY MOVEMENT WITH COASTAL SPECIFICATION

For armies the coasts are irrelevant:

France:

A Gascony - Spain(nc)

If only perfect orders are accepted, then the move will fail. But it is also possible that coasts are ignored in this case and a move will be attempted (see issue [4.B.6](#)).

I prefer that a move will be attempted.

6.B.13. TEST CASE, COASTAL CRAWL NOT ALLOWED

If a fleet is leaving a sector from a certain coast while in the opposite direction another fleet is moving to another coast of the sector, it is still a head to head battle. This has been decided in the great revision of the 1961 rules that resulted in the 1971 rules.

Turkey:

F Bulgaria(sc) - Constantinople

F Constantinople - Bulgaria(ec)

Both moves fail.

6.B.14. TEST CASE, BUILDING WITH UNSPECIFIED COAST

Coast must be specified in certain build cases:

Russia:

Build F St Petersburg

If no default coast is taken (see issue [4.B.7](#)), the build fails.

I do not like default coast, so I prefer that the build fails.

6.C. TEST CASES, CIRCULAR MOVEMENT

6.C.1. TEST CASE, THREE ARMY CIRCULAR MOVEMENT

Three units can change place, even in spring 1901.

Turkey:

F Ankara - Constantinople

A Constantinople - Smyrna

A Smyrna - Ankara

All three units will move.

6.C.2. TEST CASE, THREE ARMY CIRCULAR MOVEMENT WITH SUPPORT

Three units can change place, even when one gets support.

Turkey:

F Ankara - Constantinople

A Constantinople - Smyrna

A Smyrna - Ankara

A Bulgaria Supports F Ankara - Constantinople

Of course the three units will move, but knowing how programs are written, this can confuse the adjudicator.

6.C.3. TEST CASE, A DISRUPTED THREE ARMY CIRCULAR MOVEMENT

When one of the units bounces, the whole circular movement will hold.

Turkey:

F Ankara - Constantinople

A Constantinople - Smyrna

A Smyrna - Ankara

A Bulgaria - Constantinople

Every unit will keep its place.

6.C.4. TEST CASE, A CIRCULAR MOVEMENT WITH ATTACKED CONVOY

When the circular movement contains an attacked convoy, the circular movement succeeds. The adjudication algorithm should handle attack of convoys before calculating circular movement.

Austria:

A Trieste - Serbia

A Serbia - Bulgaria

Turkey:

A Bulgaria - Trieste

F Aegean Sea Convoys A Bulgaria - Trieste
F Ionian Sea Convoys A Bulgaria - Trieste
F Adriatic Sea Convoys A Bulgaria - Trieste

Italy:
F Naples - Ionian Sea

The fleet in the Ionian Sea is attacked but not dislodged. The circular movement succeeds. The Austrian and Turkish armies will advance.

6.C.5. TEST CASE, A DISRUPTED CIRCULAR MOVEMENT DUE TO DISLODGED CONVOY

When the circular movement contains a convoy, the circular movement is disrupted when the convoying fleet is dislodged. The adjudication algorithm should disrupt convoys before calculating circular movement.

Austria:
A Trieste - Serbia
A Serbia - Bulgaria

Turkey:
A Bulgaria - Trieste
F Aegean Sea Convoys A Bulgaria - Trieste
F Ionian Sea Convoys A Bulgaria - Trieste
F Adriatic Sea Convoys A Bulgaria - Trieste

Italy:
F Naples - Ionian Sea
F Tunis Supports F Naples - Ionian Sea

Due to the dislodged convoying fleet, all Austrian and Turkish armies will not move.

6.C.6. TEST CASE, TWO ARMIES WITH TWO CONVOYS

Two armies can swap places even when they are not adjacent.

England:
F North Sea Convoys A London - Belgium
A London - Belgium

France:
F English Channel Convoys A Belgium - London
A Belgium - London

Both convoys should succeed.

6.C.7. TEST CASE, DISRUPTED UNIT SWAP

If in a swap one of the unit bounces, then the swap fails.

England:
F North Sea Convoys A London - Belgium
A London - Belgium

France:
F English Channel Convoys A Belgium - London

A Belgium - London
A Burgundy - Belgium

None of the units will succeed to move.

6.D. TEST CASES, SUPPORTS AND DISLODGES

6.D.1. TEST CASE, SUPPORTED HOLD CAN PREVENT DISLODGEMENT

The most simple support to hold order.

Austria:
F Adriatic Sea Supports A Trieste - Venice
A Trieste - Venice

Italy:
A Venice Hold
A Tyrolia Supports A Venice

The support of Tyrolia prevents that the army in Venice is dislodged. The army in Trieste will not move.

6.D.2. TEST CASE, A MOVE CUTS SUPPORT ON HOLD

The most simple support on hold cut.

Austria:
F Adriatic Sea Supports A Trieste - Venice
A Trieste - Venice
A Vienna - Tyrolia

Italy:
A Venice Hold
A Tyrolia Supports A Venice

The support of Tyrolia is cut by the army in Vienna. That means that the army in Venice is dislodged by the army from Trieste.

6.D.3. TEST CASE, A MOVE CUTS SUPPORT ON MOVE

The most simple support on move cut.

Austria:
F Adriatic Sea Supports A Trieste - Venice
A Trieste - Venice

Italy:
A Venice Hold
F Ionian Sea - Adriatic Sea

The support of the fleet in the Adriatic Sea is cut. That means that the army in Venice will not be dislodged and the army in Trieste stays in Trieste.

6.D.4. TEST CASE, SUPPORT TO HOLD ON UNIT SUPPORTING A HOLD ALLOWED

A unit that is supporting a hold, can receive a hold support.

Germany:

A Berlin Supports F Kiel

F Kiel Supports A Berlin

Russia:

F Baltic Sea Supports A Prussia - Berlin

A Prussia - Berlin

The Russian move from Prussia to Berlin fails.

6.D.5. TEST CASE, SUPPORT TO HOLD ON UNIT SUPPORTING A MOVE ALLOWED

A unit that is supporting a move, can receive a hold support.

Germany:

A Berlin Supports A Munich - Silesia

F Kiel Supports A Berlin

A Munich - Silesia

Russia:

F Baltic Sea Supports A Prussia - Berlin

A Prussia - Berlin

The Russian move from Prussia to Berlin fails.

6.D.6. TEST CASE, SUPPORT TO HOLD ON CONVOYING UNIT ALLOWED

A unit that is convoying, can receive a hold support.

Germany:

A Berlin - Sweden

F Baltic Sea Convoys A Berlin - Sweden

F Prussia Supports F Baltic Sea

Russia:

F Livonia - Baltic Sea

F Gulf of Bothnia Supports F Livonia - Baltic Sea

The Russian move from Livonia to the Baltic Sea fails. The convoy from Berlin to Sweden succeeds.

6.D.7. TEST CASE, SUPPORT TO HOLD ON MOVING UNIT NOT ALLOWED

A unit that is moving, can not receive a hold support for the situation that the move fails.

Germany:

F Baltic Sea - Sweden

F Prussia Supports F Baltic Sea

Russia:

F Livonia - Baltic Sea

F Gulf of Bothnia Supports F Livonia - Baltic Sea

A Finland - Sweden

The support of the fleet in Prussia fails. The fleet in Baltic Sea will bounce on the Russian army in Finland and will be dislodged by the Russian fleet from Livonia when it returns to the Baltic Sea.

6.D.8. TEST CASE, FAILED CONVOY CAN NOT RECEIVE HOLD SUPPORT

If a convoy fails because of disruption of the convoy or when the right convoy orders are not given, then the army to be convoyed can not receive support in hold, since it still tried to move.

Austria:

F Ionian Sea Hold

A Serbia Supports A Albania - Greece

A Albania - Greece

Turkey:

A Greece - Naples

A Bulgaria Supports A Greece

There was a possible convoy from Greece to Naples, before the orders were made public (via the Ionian Sea). This means that the order of Greece to Naples should never be treated as illegal order and be changed in a hold order able to receive hold support (see also issue [VI.A](#)). Therefore, the support in Bulgaria fails and the army in Greece is dislodged by the army in Albania.

6.D.9. TEST CASE, SUPPORT TO MOVE ON HOLDING UNIT NOT ALLOWED

A unit that is holding can not receive a support in moving.

Italy:

A Venice - Trieste

A Tyrolia Supports A Venice - Trieste

Austria:

A Albania Supports A Trieste - Serbia

A Trieste Hold

The support of the army in Albania fails and the army in Trieste is dislodged by the army from Venice.

6.D.10. TEST CASE, SELF DISLODGMET PROHIBITED

A unit may not dislodge a unit of the same great power.

Germany:

A Berlin Hold

F Kiel - Berlin

A Munich Supports F Kiel - Berlin

Move to Berlin fails.

6.D.11. TEST CASE, NO SELF DISLODGMET OF RETURNING UNIT

Idem.

Germany:

A Berlin - Prussia

F Kiel - Berlin

A Munich Supports F Kiel - Berlin

Russia:

A Warsaw - Prussia

Army in Berlin bounces, but is not dislodged by own unit.

6.D.12. TEST CASE, SUPPORTING A FOREIGN UNIT TO DISLODGE OWN UNIT PROHIBITED

You may not help another power in dislodging your own unit.

Austria:

F Trieste Hold

A Vienna Supports A Venice - Trieste

Italy:

A Venice - Trieste

No dislodgment of fleet in Trieste.

6.D.13. TEST CASE, SUPPORTING A FOREIGN UNIT TO DISLODGE A RETURNING OWN UNIT PROHIBITED

Idem.

Austria:

F Trieste - Adriatic Sea

A Vienna Supports A Venice - Trieste

Italy:

A Venice - Trieste

F Apulia - Adriatic Sea

No dislodgment of fleet in Trieste.

6.D.14. TEST CASE, SUPPORTING A FOREIGN UNIT IS NOT ENOUGH TO PREVENT DISLODGE

If a foreign unit has enough support to dislodge your unit, you may not prevent that dislodgement by supporting the attack.

Austria:

F Trieste Hold

A Vienna Supports A Venice - Trieste

Italy:

A Venice - Trieste

A Tyrolia Supports A Venice - Trieste

F Adriatic Sea Supports A Venice - Trieste

The fleet in Trieste is dislodged.

6.D.15. TEST CASE, DEFENDER CAN NOT CUT SUPPORT FOR ATTACK ON ITSELF

A unit that is attacked by a supported unit can not prevent dislodgement by guessing which of the units will do the support.

Russia:

F Constantinople Supports F Black Sea - Ankara

F Black Sea - Ankara

Turkey:

F Ankara - Constantinople

The support of Constantinople is not cut and the fleet in Ankara is dislodged by the fleet in the Black Sea. a name="6.D.16">

6.D.16. TEST CASE, CONVOYING A UNIT DISLODGING A UNIT OF SAME POWER IS ALLOWED

It is allowed to convoy a foreign unit that dislodges your own unit is allowed.

England:

A London Hold

F North Sea Convoys A Belgium - London

France:

F English Channel Supports A Belgium - London

A Belgium - London

The English army in London is dislodged by the French army coming from Belgium.

6.D.17. TEST CASE, DISLODGE CUTS SUPPORTS

The famous dislodge rule.

Russia:

F Constantinople Supports F Black Sea - Ankara

F Black Sea - Ankara

Turkey:

F Ankara - Constantinople

A Smyrna Supports F Ankara - Constantinople

A Armenia - Ankara

The Russian fleet in Constantinople is dislodged. This cuts the support to from Black Sea to Ankara. Black Sea will bounce with the army from Armenia.

6.D.18. TEST CASE, A SURVIVING UNIT WILL SUSTAIN SUPPORT

Idem. But now with an additional hold that prevents dislodgement.

Russia:

F Constantinople Supports F Black Sea - Ankara

F Black Sea - Ankara

A Bulgaria Supports F Constantinople

Turkey:
F Ankara - Constantinople
A Smyrna Supports F Ankara - Constantinople
A Armenia - Ankara

The Russian fleet in the Black Sea will dislodge the Turkish fleet in Ankara.

6.D.19. TEST CASE, EVEN WHEN SURVIVING IS IN ALTERNATIVE WAY

Now, the dislodgement is prevented because the supports comes from a Russian army:

Russia:
F Constantinople Supports F Black Sea - Ankara
F Black Sea - Ankara
A Smyrna Supports F Ankara - Constantinople

Turkey:
F Ankara - Constantinople

The Russian fleet in Constantinople is not dislodged, because one of the support is of Russian origin. The support from Black Sea to Ankara will sustain and the fleet in Ankara will be dislodged.

6.D.20. TEST CASE, UNIT CAN NOT CUT SUPPORT OF ITS OWN COUNTRY

Although this is not mentioned in all rulebooks, it is generally accepted that when a unit attacks another unit of the same Great Power, it will not cut support.

England:
F London Supports F North Sea - English Channel
F North Sea - English Channel
A Yorkshire - London

France:
F English Channel Hold

The army in York does not cut support. This means that the fleet in the English Channel is dislodged by the fleet in the North Sea.

6.D.21. TEST CASE, DISLODGING DOES NOT CANCEL A SUPPORT CUT

Sometimes there is the question whether a dislodged moving unit does not cut support (similar to the dislodge rule). This is not the case.

Austria:
F Trieste Hold

Italy:
A Venice - Trieste
A Tyrolia Supports A Venice - Trieste

Germany:
A Munich - Tyrolia

Russia:

A Silesia - Munich
A Berlin Supports A Silesia - Munich

Although the German army is dislodged, it still cuts the Italian support. That means that the Austrian Fleet is not dislodged.

6.D.22. TEST CASE, IMPOSSIBLE FLEET MOVE CAN NOT BE SUPPORTED

If a fleet tries moves to a land area it seems pointless to support the fleet, since the move will fail anyway. However, in such case, the support is also invalid for defense purposes.

Germany:
F Kiel - Munich
A Burgundy Supports F Kiel - Munich

Russia:
A Munich - Kiel
A Berlin Supports A Munich - Kiel

The German move from Kiel to Munich is illegal (fleets can not go to Munich). Therefore, the support from Burgundy fails and the Russian army in Munich will dislodge the fleet in Kiel. Note that the failing of the support is not explicitly mentioned in the rulebooks (the DPTG is more clear about this point). If you take the rulebooks very literally, you might conclude that the fleet in Munich is not dislodged, but this is an incorrect interpretation.

6.D.23. TEST CASE, IMPOSSIBLE COAST MOVE CAN NOT BE SUPPORTED

Comparable with the previous test case, but now the fleet move is impossible for coastal reasons.

Italy:
F Gulf of Lyon - Spain(sc)
F Western Mediterranean Supports F Gulf of Lyon - Spain(sc)

France:
F Spain(nc) - Gulf of Lyon
F Marseilles Supports F Spain(nc) - Gulf of Lyon

The French move from Spain North Coast to Gulf of Lyon is illegal (wrong coast). Therefore, the support from Marseilles fails and the fleet in Spain is dislodged.

6.D.24. TEST CASE, IMPOSSIBLE ARMY MOVE CAN NOT BE SUPPORTED

Comparable with the previous test case, but now an army tries to move into sea and the support is used in a beleaguered garrison.

France:
A Marseilles - Gulf of Lyon
F Spain(sc) Supports A Marseilles - Gulf of Lyon

Italy:
F Gulf of Lyon Hold

Turkey:
F Tyrrhenian Sea Supports F Western Mediterranean - Gulf of Lyon

The French move from Marseilles to Gulf of Lyon is illegal (an army can not go to sea). Therefore, the support from Spain fails and there is no beleaguered garrison. The fleet in the Gulf of Lyon is dislodged by the Turkish fleet in the Western Mediterranean.

6.D.25. TEST CASE, FAILING HOLD SUPPORT CAN BE SUPPORTED

If an adjudicator fails on one of the previous three test cases, then the bug should be removed with care. A failing move can not be supported, but a failing hold support, because of some preconditions (unmatching order) can still be supported.

Germany:

A Berlin Supports A Prussia

F Kiel Supports A Berlin

Russia:

F Baltic Sea Supports A Prussia - Berlin

A Prussia - Berlin

Although the support of Berlin on Prussia fails (because of unmatching orders), the support of Kiel on Berlin is still valid. So, Berlin will not be dislodged.

6.D.26. TEST CASE, FAILING MOVE SUPPORT CAN BE SUPPORTED

Similar as the previous test case, but now with an unmatched support to move.

Germany:

A Berlin Supports A Prussia - Silesia

F Kiel Supports A Berlin

Russia:

F Baltic Sea Supports A Prussia - Berlin

A Prussia - Berlin

Again, Berlin will not be dislodged.

6.D.27. TEST CASE, FAILING CONVOY CAN BE SUPPORTED

Similar as the previous test case, but now with an unmatched convoy.

England:

F Sweden - Baltic Sea

F Denmark Supports F Sweden - Baltic Sea

Germany:

A Berlin Hold

Russia:

F Baltic Sea Convoys A Berlin - Livonia

F Prussia Supports F Baltic Sea

The convoy order in the Baltic Sea is unmatched and fails. However, the support of Prussia on the Baltic Sea is still valid and the fleet in the Baltic Sea is not dislodged.

6.D.28. TEST CASE, IMPOSSIBLE MOVE AND SUPPORT

If a move is impossible then it can be treated as "illegal", which makes a hold support possible.

Austria:

A Budapest Supports F Rumania

Russia:

F Rumania - Holland

Turkey:

F Black Sea - Rumania

A Bulgaria Supports F Black Sea - Rumania

The move of the Russian fleet is impossible. But the question is, whether it is "illegal" (see issue [4.E.1](#)). If the move is "illegal" it must be ignored and that makes the hold support of the army in Budapest valid and the fleet in Rumania will not be dislodged.

I prefer that the move is "illegal", which means that the fleet in the Black Sea does not dislodge the supported Russian fleet.

6.D.29. TEST CASE, MOVE TO IMPOSSIBLE COAST AND SUPPORT

Similar to the previous test case, but now the move can be "illegal" because of the wrong coast.

Austria:

A Budapest Supports F Rumania

Russia:

F Rumania - Bulgaria(sc)

Turkey:

F Black Sea - Rumania

A Bulgaria Supports F Black Sea - Rumania

Again the move of the Russian fleet is impossible. However, some people might correct the coast (see issue [4.B.3](#)). If the coast is not corrected, again the question is whether it is "illegal" (see issue [4.E.1](#)). If the move is "illegal" it must be ignored and that makes the hold support of the army in Budapest valid and the fleet in Rumania will not be dislodged.

I prefer that unambiguous orders are not changed and that the move is "illegal". That means that the fleet in the Black Sea does not dislodge the supported Russian fleet.

6.D.30. TEST CASE, MOVE WITHOUT COAST AND SUPPORT

Similar to the previous test case, but now the move can be "illegal" because of missing coast.

Italy:

F Aegean Sea Supports F Constantinople

Russia:

F Constantinople - Bulgaria

Turkey:

F Black Sea - Constantinople

Again the order to the Russian fleet is with problems, because it does not specify the coast, while both coasts of Bulgaria are possible. If no default coast is taken (see issue [4.B.1](#)), then also here it must be decided whether the order is "illegal" (see issue [4.E.1](#)). If the move is "illegal" it must be ignored and that makes the hold support of the fleet in the Aegean Sea valid and the Russian fleet will not be dislodged.

I don't like default coasts and I prefer that the move is "illegal". That means that the fleet in the Black Sea does not dislodge the supported Russian fleet.

6.D.31. TEST CASE, A TRICKY IMPOSSIBLE SUPPORT

A support order can be impossible for complex reasons.

Austria:

A Rumania - Armenia

Turkey:

F Black Sea Supports A Rumania - Armenia

Although the army in Rumania can move to Armenia and the fleet in the Black Sea can also go to Armenia, the support is still not possible. The reason is that the only possible convoy is through the Black Sea and a fleet can not convoy and support at the same time.

This is relevant for computer programs that show only the possible orders. In the list of possible orders, the support as given to the fleet in the Black Sea, should not be listed. Furthermore, if the fleet in the Black Sea gets a second order, then this may fail, because of double orders (although it can also be ruled differently, see issue [4.D.3](#)). However, when the support order is considered "illegal" (see issue [4.E.1](#)), then this impossible support must be ignored and the second order must be carried out.

I prefer that impossible orders are "illegal" and ignored. If there would be a second order for the fleet in the Black Sea, that order should be carried out.

6.D.32. TEST CASE, A MISSING FLEET

The previous test cases contained an order that was impossible even when some other pieces on the board were changed. In this test case, the order is impossible, but only for that situation.

England:

F Edinburgh Supports A Liverpool - Yorkshire

A Liverpool - Yorkshire

France:

F London Supports A Yorkshire

Germany:

A Yorkshire - Holland

The German order to Yorkshire can not be executed, because there is no fleet in the North Sea. In other situations (where there is a fleet in the North Sea), the exact same order would be possible. It should be determined whether this is "illegal" (see issue [4.E.1](#)) or not. If it is illegal,

then the order should be ignored and the support of the French fleet in London succeeds. This means that the army in Yorkshire is not dislodged.

I prefer that impossible orders, even if it is only impossible for the current situation, are "illegal" and ignored. The army in Yorkshire is not dislodged.

6.D.33. TEST CASE, UNWANTED SUPPORT ALLOWED

A self stand-off can be broken by an unwanted support.

Austria:

A Serbia - Budapest

A Vienna - Budapest

Russia:

A Galicia Supports A Serbia - Budapest

Turkey:

A Bulgaria - Serbia

Due to the Russian support, the army in Serbia advances to Budapest. This enables Turkey to capture Serbia with the army in Bulgaria.

6.D.34. TEST CASE, SUPPORT TARGETING OWN AREA NOT ALLOWED

Support targeting the area where the supporting unit is standing, is illegal.

Germany:

A Berlin - Prussia

A Silesia Supports A Berlin - Prussia

F Baltic Sea Supports A Berlin - Prussia

Italy:

A Prussia Supports Livonia - Prussia

Russia:

A Warsaw Supports A Livonia - Prussia

A Livonia - Prussia

Russia and Italy wanted to get rid of the Italian army in Prussia (to build an Italian fleet somewhere else). However, they didn't want a possible German attack on Prussia to succeed. They invented this odd order of Italy. It was intended that the attack of the army in Livonia would have strength three, so it would be capable to prevent the possible German attack to succeed. However, the order of Italy is illegal, because a unit may only support to an area where the unit can go by itself. A unit can't go to the area it is already standing, so the Italian order is illegal and the German move from Berlin succeeds. Even if it would be legal, the German move from Berlin would still succeed, because the support of Prussia is cut by Livonia and Berlin.

6.E. TEST CASES, HEAD TO HEAD BATTLES AND BELEAGUERED GARRISON

6.E.1. TEST CASE, DISLODGED UNIT HAS NO EFFECT ON ATTACKERS AREA

An army can follow.

Germany:

A Berlin - Prussia

F Kiel - Berlin

A Silesia Supports A Berlin - Prussia

Russia:

A Prussia - Berlin

The army in Kiel will move to Berlin.

6.E.2. TEST CASE, NO SELF DISLODGEEMENT IN HEAD TO HEAD BATTLE

Self dislodgement is not allowed. This also counts for head to head battles.

Germany:

A Berlin - Kiel

F Kiel - Berlin

A Munich Supports A Berlin - Kiel

No unit will move.

6.E.3. TEST CASE, NO HELP IN DISLODGING OWN UNIT

To help a foreign power to dislodge own unit in head to head battle is not possible.

Germany:

A Berlin - Kiel

A Munich Supports F Kiel - Berlin

England:

F Kiel - Berlin

No unit will move.

6.E.4. TEST CASE, NON-DISLODGED LOSER HAS STILL EFFECT

If in an unbalanced head to head battle the loser is not dislodged, it has still effect on the area of the attacker.

Germany:

F Holland - North Sea

F Helgoland Bight Supports F Holland - North Sea

F Skagerrak Supports F Holland - North Sea

France:

F North Sea - Holland

F Belgium Supports F North Sea - Holland

England:

F Edinburgh Supports F Norwegian Sea - North Sea

F Yorkshire Supports F Norwegian Sea - North Sea

F Norwegian Sea - North Sea

Austria:

A Kiel Supports A Ruhr - Holland
A Ruhr - Holland

The French fleet in the North Sea is not dislodged due to the beleaguered garrison. Therefore, the Austrian army in Ruhr will not move to Holland.

6.E.5. TEST CASE, LOSER DISLODGED BY ANOTHER ARMY HAS STILL EFFECT

If in an unbalanced head to head battle the loser is dislodged by a unit not part of the head to head battle, the loser has still effect on the place of the winner of the head to head battle.

Germany:
F Holland - North Sea
F Helgoland Bight Supports F Holland - North Sea
F Skagerrak Supports F Holland - North Sea

France:
F North Sea - Holland
F Belgium Supports F North Sea - Holland

England:
F Edinburgh Supports F Norwegian Sea - North Sea
F Yorkshire Supports F Norwegian Sea - North Sea
F Norwegian Sea - North Sea
F London Supports F Norwegian Sea - North Sea

Austria:
A Kiel Supports A Ruhr - Holland
A Ruhr - Holland

The French fleet in the North Sea is dislodged but not by the German fleet in Holland. Therefore, the French fleet can still prevent that the Austrian army in Ruhr will move to Holland. So, the Austrian move in Ruhr fails and the German fleet in Holland is not dislodged.

6.E.6. TEST CASE, NOT DISLODGE BECAUSE OF OWN SUPPORT HAS STILL EFFECT

If in an unbalanced head to head battle the loser is not dislodged because the winner had help of a unit of the loser, the loser has still effect on the area of the winner.

Germany:
F Holland - North Sea
F Helgoland Bight Supports F Holland - North Sea

France:
F North Sea - Holland
F Belgium Supports F North Sea - Holland
F English Channel Supports F Holland - North Sea

Austria:
A Kiel Supports A Ruhr - Holland
A Ruhr - Holland

Although the German force from Holland to North Sea is one larger than the French force from North Sea to Holland, the French fleet in the North Sea is not dislodged, because one of the supports on the German movement is French. Therefore, the Austrian army in Ruhr will not

move to Holland.

6.E.7. TEST CASE, NO SELF DISLODGEEMENT WITH BELEAGUERED GARRISON

An attempt to self dislodgement can be combined with a beleaguered garrison. Such self dislodgment is still not possible.

England:

F North Sea Hold

F Yorkshire Supports F Norway - North Sea

Germany:

F Holland Supports F Helgoland Bight - North Sea

F Helgoland Bight - North Sea

Russia:

F Skagerrak Supports F Norway - North Sea

F Norway - North Sea

Although the Russians beat the German attack (with the support of Yorkshire) and the two Russian fleets are enough to dislodge the fleet in the North Sea, the fleet in the North Sea is not dislodged, since it would not be dislodged if the English fleet in Yorkshire would not give support. According to the DPTG the fleet in the North Sea would be dislodged. The DPTG is incorrect in this case.

6.E.8. TEST CASE, NO SELF DISLODGEEMENT WITH BELEAGUERED GARRISON AND HEAD TO HEAD BATTLE

Similar to the previous test case, but now the beleaguered fleet is also engaged in a head to head battle.

England:

F North Sea - Norway

F Yorkshire Supports F Norway - North Sea

Germany:

F Holland Supports F Helgoland Bight - North Sea

F Helgoland Bight - North Sea

Russia:

F Skagerrak Supports F Norway - North Sea

F Norway - North Sea

Again, none of the fleets move.

6.E.9. TEST CASE, ALMOST SELF DISLODGEEMENT WITH BELEAGUERED GARRISON

Similar to the previous test case, but now the beleaguered fleet is moving away.

England:

F North Sea - Norwegian Sea

F Yorkshire Supports F Norway - North Sea

Germany:

F Holland Supports F Helgoland Bight - North Sea

F Helgoland Bight - North Sea

Russia:

F Skagerrak Supports F Norway - North Sea

F Norway - North Sea

Both the fleet in the North Sea and the fleet in Norway move.

6.E.10. TEST CASE, ALMOST CIRCULAR MOVEMENT WITH NO SELF DISLODGE- MENT WITH BELEAGUERED GARRISON

Similar to the previous test case, but now the beleaguered fleet is in circular movement with the weaker attacker. So, the circular movement fails.

England:

F North Sea - Denmark

F Yorkshire Supports F Norway - North Sea

Germany:

F Holland Supports F Helgoland Bight - North Sea

F Helgoland Bight - North Sea

F Denmark - Helgoland Bight

Russia:

F Skagerrak Supports F Norway - North Sea

F Norway - North Sea

There is no movement of fleets.

6.E.11. TEST CASE, NO SELF DISLODGE- MENT WITH BELEAGUERED GARRISON, UNIT SWAP WITH ADJACENT CONVOYING AND TWO COASTS

Similar to the previous test case, but now the beleaguered fleet is in a unit swap with the stronger attacker. So, the unit swap succeeds. To make the situation more complex, the swap is on an area with two coasts.

France:

A Spain - Portugal via Convoy

F Mid-Atlantic Ocean Convoys A Spain - Portugal

F Gulf of Lyon Supports F Portugal - Spain(nc)

Germany:

A Marseilles Supports A Gascony - Spain

A Gascony - Spain

Italy:

F Portugal - Spain(nc)

F Western Mediterranean Supports F Portugal - Spain(nc)

The unit swap succeeds. Note that due to the success of the swap, there is no beleaguered garrison anymore.

6.E.12. TEST CASE, SUPPORT ON ATTACK ON OWN UNIT CAN BE USED FOR OTHER MEANS

A support on an attack on your own unit has still effect. It can prevent that another army will dislodge the unit.

Austria:

A Budapest - Rumania

A Serbia Supports A Vienna - Budapest

Italy:

A Vienna - Budapest

Russia:

A Galicia - Budapest

A Rumania Supports A Galicia - Budapest

The support of Serbia on the Italian army prevents that the Russian army in Galicia will advance. No army will move.

6.E.13. TEST CASE, THREE WAY BELEAGUERED GARRISON

In a beleaguered garrison from three sides, the adjudicator may not let two attacks fail and then let the third succeed.

England:

F Edinburgh Supports F Yorkshire - North Sea

F Yorkshire - North Sea

France:

F Belgium - North Sea

F English Channel Supports F Belgium - North Sea

Germany:

F North Sea Hold

Russia:

F Norwegian Sea - North Sea

F Norway Supports F Norwegian Sea - North Sea

None of the fleets move. The German fleet in the North Sea is not dislodged.

6.E.14. TEST CASE, ILLEGAL HEAD TO HEAD BATTLE CAN STILL DEFEND

If in a head to head battle, one of the units makes an illegal move, than that unit has still the possibility to defend against attacks with strength of one.

England:

A Liverpool - Edinburgh

Russia:

F Edinburgh - Liverpool

The move of the Russian fleet is illegal, but can still prevent the English army to enter Edinburgh. So, none of the units move.

6.E.15. TEST CASE, THE FRIENDLY HEAD TO HEAD BATTLE

In this case both units in the head to head battle prevent that the other one is dislodged.

England:

F Holland Supports A Ruhr - Kiel

A Ruhr - Kiel

France:

A Kiel - Berlin

A Munich Supports A Kiel - Berlin

A Silesia Supports A Kiel - Berlin

Germany:

A Berlin - Kiel

F Denmark Supports A Berlin - Kiel

F Helgoland Bight Supports A Berlin - Kiel

Russia:

F Baltic Sea Supports A Prussia - Berlin

A Prussia - Berlin

None of the moves succeeds. This case is especially difficult for sequence based adjudicators. They will start adjudicating the head to head battle and continue to adjudicate the attack on one of the units part of the head to head battle. In this process, one of the sides of the head to head battle might be cancelled out. This happens in the DPTG. If this is adjudicated according to the DPTG, the unit in Ruhr or in Prussia will advance (depending on the order the units are adjudicated). This is clearly a bug in the DPTG.

6.F. TEST CASES, CONVOYS

6.F.1. TEST CASE, NO CONVOY IN COASTAL AREAS

A fleet in a coastal area may not convoy.

Turkey:

A Greece - Sevastopol

F Aegean Sea Convoys A Greece - Sevastopol

F Constantinople Convoys A Greece - Sevastopol

F Black Sea Convoys A Greece - Sevastopol

The convoy in Constantinople is not possible. So, the army in Greece will not move to Sevastopol.

6.F.2. TEST CASE, AN ARMY BEING CONVOYED CAN BOUNCE AS NORMAL

Armies being convoyed bounce on other units just as armies that are not being convoyed.

England:

F English Channel Convoys A London - Brest

A London - Brest

France:

A Paris - Brest

The English army in London bounces on the French army in Paris. Both units do not move.

6.F.3. TEST CASE, AN ARMY BEING CONVOYED CAN RECEIVE SUPPORT

Armies being convoyed can receive support as in any other move.

England:

F English Channel Convoys A London - Brest

A London - Brest

F Mid-Atlantic Ocean Supports A London - Brest

France:

A Paris - Brest

The army in London receives support and beats the army in Paris. This means that the army London will end in Brest and the French army in Paris stays in Paris.

6.F.4. TEST CASE, AN ATTACKED CONVOY IS NOT DISRUPTED

A convoy can only be disrupted by dislodging the fleets. Attacking is not sufficient.

England:

F North Sea Convoys A London - Holland

A London - Holland

Germany:

F Skagerrak - North Sea

The army in London will successfully convoy and end in Holland.

6.F.5. TEST CASE, A BELEAGUERED CONVOY IS NOT DISRUPTED

Even when a convoy is in a beleaguered garrison it is not disrupted.

England:

F North Sea Convoys A London - Holland

A London - Holland

France:

F English Channel - North Sea

F Belgium Supports F English Channel - North Sea

Germany:

F Skagerrak - North Sea

F Denmark Supports F Skagerrak - North Sea

The army in London will successfully convoy and end in Holland.

6.F.6. TEST CASE, DISLODGED CONVOY DOES NOT CUT SUPPORT

When a fleet of a convoy is dislodged, the convoy is completely cancelled. So, no support is cut.

England:

F North Sea Convoys A London - Holland

A London - Holland

Germany:

A Holland Supports A Belgium

A Belgium Supports A Holland
F Helgoland Bight Supports F Skagerrak - North Sea
F Skagerrak - North Sea

France:
A Picardy - Belgium
A Burgundy Supports A Picardy - Belgium

The hold order of Holland on Belgium will sustain and Belgium will not be dislodged by the French in Picardy.

6.F.7. TEST CASE, DISLODGED CONVOY DOES NOT CAUSE CONTESTED AREA

When a fleet of a convoy is dislodged, the landing area is not contested, so other units can retreat to that area.

England:
F North Sea Convoys A London - Holland
A London - Holland

Germany:
F Helgoland Bight Supports F Skagerrak - North Sea
F Skagerrak - North Sea

The dislodged English fleet can retreat to Holland.

6.F.8. TEST CASE, DISLODGED CONVOY DOES NOT CAUSE A BOUNCE

When a fleet of a convoy is dislodged, then there will be no bounce in the landing area.

England:
F North Sea Convoys A London - Holland
A London - Holland

Germany:
F Helgoland Bight Supports F Skagerrak - North Sea
F Skagerrak - North Sea
A Belgium - Holland

The army in Belgium will not bounce and move to Holland.

6.F.9. TEST CASE, DISLodge OF MULTI-ROUTE CONVOY

When a fleet of a convoy with multiple routes is dislodged, the result depends on the rulebook that is used.

England:
F English Channel Convoys A London - Belgium
F North Sea Convoys A London - Belgium
A London - Belgium

France:
F Brest Supports F Mid-Atlantic Ocean - English Channel
F Mid-Atlantic Ocean - English Channel

The French fleet in Mid Atlantic Ocean will dislodge the convoying fleet in the English Channel. If

the 1971 rules are used (see issue [4.A.1](#)), this will disrupt the convoy and the army will stay in London. When the 1982 or 2000 rulebook is used (*which I prefer*) the army can still go via the North Sea and the convoy succeeds and the London army will end in Belgium.

6.F.10. TEST CASE, DISLODGE OF MULTI-ROUTE CONVOY WITH FOREIGN FLEET

When the 1971 rulebook is used "unwanted" multi-route convoys are possible.

England:

F North Sea Convoys A London - Belgium

A London - Belgium

Germany:

F English Channel Convoys A London - Belgium

France:

F Brest Supports F Mid-Atlantic Ocean - English Channel

F Mid-Atlantic Ocean - English Channel

If the 1982 or 2000 rulebook is used (*which I prefer*), it makes no difference that the conveying fleet in the English Channel is German. It will take the convoy via the North Sea anyway and the army in London will end in Belgium. However, when the 1971 rules are used, the German convoy is "unwanted". According to the DPTG the German fleet should be ignored in the English convoy, since there is a convoy path with only English fleets. That means that the convoy is not disrupted and the English army in London will end in Belgium. See also issue [4.A.1](#).

6.F.11. TEST CASE, DISLODGE OF MULTI-ROUTE CONVOY WITH ONLY FOREIGN FLEETS

When the 1971 rulebook is used, "unwanted" convoys can not be ignored in all cases.

England:

A London - Belgium

Germany:

F English Channel Convoys A London - Belgium

Russia:

F North Sea Convoys A London - Belgium

France:

F Brest Supports F Mid-Atlantic Ocean - English Channel

F Mid-Atlantic Ocean - English Channel

If the 1982 or 2000 rulebook is used (*which I prefer*), it makes no difference that the conveying fleets are not English. It will take the convoy via the North Sea anyway and the army in London will end in Belgium.

However, when the 1971 rules are used, the situation is different. Since both the fleet in the English Channel as the fleet in North Sea are not English, it can not be concluded that the German fleet is "unwanted". Therefore, one of the routes of the convoy is disrupted and that means that the complete convoy is disrupted. The army in London will stay in London. See also issue [4.A.1](#).

6.F.12. TEST CASE, DISLODGED CONVOYING FLEET NOT ON ROUTE

When the rule is used that convoys are disrupted when one of the routes is disrupted (see issue [4.A.1](#)), the convoy is not necessarily disrupted when one of the fleets ordered to convoy is dislodged.

England:

F English Channel Convoys A London - Belgium

A London - Belgium

F Irish Sea Convoys A London - Belgium

France:

F North Atlantic Ocean Supports F Mid-Atlantic Ocean - Irish Sea

F Mid-Atlantic Ocean - Irish Sea

Even when convoys are disrupted when one of the routes is disrupted (see issue [4.A.1](#)), the convoy from London to Belgium will still succeed, since the dislodged fleet in the Irish Sea is not part of any route, although it can be reached from the starting point London.

6.F.13. TEST CASE, THE UNWANTED ALTERNATIVE

This situation is not difficult to adjudicate, but it shows that even if someone wants to convoy, the player might not want an alternative route for the convoy.

England:

A London - Belgium

F North Sea Convoys A London - Belgium

France:

F English Channel Convoys A London - Belgium

Germany:

F Holland Supports F Denmark - North Sea

F Denmark - North Sea

If France and German are allies, England want to keep its army in London, to defend the island. An army in Belgium could easily be destroyed by an alliance of France and Germany. England tries to be friends with Germany, however France and Germany trick England.

The convoy of the army in London succeeds and the fleet in Denmark dislodges the fleet in the North Sea.

6.F.14. TEST CASE, SIMPLE CONVOY PARADOX

The most common paradox is when the attacked unit supports an attack on one of the convoying fleets.

England:

F London Supports F Wales - English Channel

F Wales - English Channel

France:

A Brest - London

F English Channel Convoys A Brest - London

This situation depends on how paradoxes are handled (see issue [4.A.2](#)). In case of the 'All Hold' rule (fully applied, not just as "backup" rule), both the movement of the English fleet in Wales as the France convoy in Brest are part of the paradox and fail. In all other rules of paradoxical convoys (*including the Szykman rule which I prefer*), the support of London is not cut. That means that the fleet in the English Channel is dislodged.

6.F.15. TEST CASE, SIMPLE CONVOY PARADOX WITH ADDITIONAL CONVOY

Paradox rules only apply on the paradox core.

England:

F London Supports F Wales - English Channel

F Wales - English Channel

France:

A Brest - London

F English Channel Convoys A Brest - London

Italy:

F Irish Sea Convoys A North Africa - Wales

F Mid-Atlantic Ocean Convoys A North Africa - Wales

A North Africa - Wales

The Italian convoy is not part of the paradox core and should therefore succeed when the move of the fleet in Wales is successful. This is the case except when the 'All Hold' paradox rule is used (fully applied, not just as "backup" rule, see issue [4.A.2](#)).

I prefer the Szykman rule, so I prefer that both the fleet in Wales as the army in North Africa succeed in moving.

6.F.16. TEST CASE, PANDIN'S PARADOX

In Pandin's paradox, the attacked unit protects the convoying fleet by a beleaguered garrison.

England:

F London Supports F Wales - English Channel

F Wales - English Channel

France:

A Brest - London

F English Channel Convoys A Brest - London

Germany:

F North Sea Supports F Belgium - English Channel

F Belgium - English Channel

In all the different rules for resolving convoy disruption paradoxes (see issue [4.A.2](#)), the support of London is not cut. That means that the fleet in the English Channel is not dislodged and none of the units succeed to move.

6.F.17. TEST CASE, PANDIN'S EXTENDED PARADOX

In Pandin's extended paradox, the attacked unit protects the convoying fleet by a beleaguered garrison and the attacked unit can dislodge the unit that gives the protection.

England:

F London Supports F Wales - English Channel

F Wales - English Channel

France:

A Brest - London

F English Channel Convoys A Brest - London

F Yorkshire Supports A Brest - London

Germany:

F North Sea Supports F Belgium - English Channel

F Belgium - English Channel

When the 1971, 1982 or 2000 rule is used (see issue [4.A.2](#)), the support of London is not cut. That means that the fleet in the English Channel is not dislodged. The convoy will succeed and dislodge the fleet in London. You may argue that this violates the dislodge rule, but the common interpretation is that the paradox convoy rules take precedence over the dislodge rule.

If the Simon Szykman alternative is used (*which I prefer*), the convoy fails and the fleet in London and the English Channel are not dislodged. When the 'All Hold' (fully applied, not just as "backup" rule) or the DPTG rule is used, the result is the same as the Simon Szykman alternative. The involved moves (the move of the German fleet in Belgium and the convoying army in Brest) fail.

6.F.18. TEST CASE, BETRAYAL PARADOX

The betrayal paradox is comparable to Pandin's paradox, but now the attacked unit directly supports the convoying fleet. Of course, this will only happen when the player of the attacked unit is betrayed.

England:

F North Sea Convoys A London - Belgium

A London - Belgium

F English Channel Supports A London - Belgium

France:

F Belgium Supports F North Sea

Germany:

F Helgoland Bight Supports F Skagerrak - North Sea

F Skagerrak - North Sea

If the English convoy from London to Belgium is successful, then it cuts the France support necessary to hold the fleet in the North Sea (see issue [4.A.2](#)).

The 1971 and 2000 ruling do not give an answer on this.

According to the 1982 ruling the French support on the North Sea will not be cut. So, the fleet in the North Sea will not be dislodged by the Germans and the army in London will dislodge the French army in Belgium.

If the Szykman rule is followed (*which I prefer*), the move of the army in London will fail and will not cut support. That means that the fleet in the North Sea will not be dislodged.

The 'All Hold' rule has the same result as the Szykman rule, but with a different reason. The move of the army in London and the move of the German fleet in Skagerrak will fail.

Since a failing convoy does not result in a consistent resolution, the DPTG gives the same result as the 'All Hold' rule.

6.F.19. TEST CASE, MULTI-ROUTE CONVOY DISRUPTION PARADOX

The situation becomes more complex when the convoy has alternative routes.

France:

A Tunis - Naples

F Tyrrhenian Sea Convoys A Tunis - Naples

F Ionian Sea Convoys A Tunis - Naples

Italy:

F Naples Supports F Rome - Tyrrhenian Sea

F Rome - Tyrrhenian Sea

Now, two issues play a role. The ruling about disruption of convoys (issue [4.A.1](#)) and the issue how paradoxes are resolved (issue [4.A.2](#)).

If the 1971 rule is used about multi-route convoys (when one of the routes is disrupted, the convoy fails), this test case is just a simple paradox. For the 1971, 1982, 2000 and Szykman paradox rule, the support of the fleet in Naples is not cut and the fleet in Rome dislodges the fleet in the Tyrrhenian Sea. When the 'All Hold' rule is used, both the convoy of the army in Tunis as the move of the fleet in Rome will fail.

When the 1982 rule is used about multi-route convoy disruption, then convoys are disrupted when all routes are disrupted (*this is the rule I prefer*). With this rule, the situation becomes paradoxical. According to the 1971 and 1982 paradox rules, the support given by the fleet in Naples is not cut, that means that the fleet in the Tyrrhenian Sea is dislodged.

According to the 2000 ruling the fleet in the Tyrrhenian Sea is not "necessary" for the convoy and the support of Naples is cut and the fleet in the Tyrrhenian Sea is not dislodged.

If the Szykman rule is used (*which I prefer*), the 'All Hold' rule or the DPTG, then there is no paradoxical situation. The support of Naples is cut and the fleet in the Tyrrhenian Sea is not dislodged.

6.F.20. TEST CASE, UNWANTED MULTI-ROUTE CONVOY PARADOX

The 1982 paradox rule allows some creative defense.

France:

A Tunis - Naples

F Tyrrhenian Sea Convoys A Tunis - Naples

Italy:

F Naples Supports F Ionian Sea

F Ionian Sea Convoys A Tunis - Naples

Turkey:

F Aegean Sea Supports F Eastern Mediterranean - Ionian Sea

Again, two issues play a role. The ruling about disruption of multi-route convoys (issue [4.A.1](#)) and the issue how paradoxes are resolved (issue [4.A.2](#)).

If the 1971 rule is used about multi-route convoys (when one of the routes is disrupted, the convoy fails), the Italian convoy order in the Ionian Sea is not part of the convoy, because it is a foreign unit (according to the DPTG). That means that the fleet in the Ionian Sea is not a 'convoying' fleet. In all rulings the support of Naples on the Ionian Sea is cut and the fleet in the Ionian Sea is dislodged by the Turkish fleet in the Eastern Mediterranean.

When the 1982 rule is used about multi-route convoy disruption, then convoys are disrupted when all routes are disrupted (*this is the rule I prefer*). With this rule, the situation becomes paradoxical. According to the 1971 and 1982 paradox rules, the support given by the fleet in Naples is not cut, that means that the fleet in the Ionian Sea is not dislodged.

According to the 2000 ruling the fleet in the Ionian Sea is not "necessary" and the support of Naples is cut and the fleet in the Ionian Sea is dislodged by the Turkish fleet in the Eastern Mediterranean.

If the Szykman rule, the 'All Hold' rule or DPTG is used, then there is no paradoxical situation. The support of Naples is cut and the fleet in the Ionian Sea is dislodged by the Turkish fleet in the Eastern Mediterranean.

As you can see, the 1982 rules allows the Italian player to save its fleet in the Ionian Sea with a trick. I do not consider this trick as normal tactical play. I prefer the Szykman rule as one of the rules that does not allow this trick. According to this rule the fleet in the Ionian Sea is dislodged.

6.F.21. TEST CASE, DAD'S ARMY CONVOY

The 1982 paradox rule has as side effect that convoying armies do not cut support in some situations that are not paradoxical.

Russia:

A Edinburgh Supports A Norway - Clyde
F Norwegian Sea Convoys A Norway - Clyde
A Norway - Clyde

France:

F Irish Sea Supports F Mid-Atlantic Ocean - North Atlantic Ocean
F Mid-Atlantic Ocean - North Atlantic Ocean

England:

A Liverpool - Clyde via Convoy
F North Atlantic Ocean Convoys A Liverpool - Clyde
F Clyde Supports F North Atlantic Ocean

In all rulings, except the 1982 paradox ruling, the support of the fleet in Clyde on the North Atlantic Ocean is cut and the French fleet in the Mid-Atlantic Ocean will dislodge the fleet in the North Atlantic Ocean. This is the preferred way.

However, in the 1982 paradox rule (see issue [4.A.2](#)), the support of the fleet in Clyde is not cut. That means that the English fleet in the North Atlantic Ocean is not dislodged.

As you can see, the 1982 rule allows England to save its fleet in the North Atlantic Ocean in a very strange way. Just the support of Clyde is insufficient (if there is no convoy, the support is cut). Only the convoy to the area occupied by own unit, can do the trick in this situation. The embarking of troops in the fleet deceives the enemy so much that it works as a magic cloak. The enemy is not able to dislodge the fleet in the North Atlantic Ocean any more. Of course, this will only work in comedies. I prefer the Szykman rule as one of the rules that does not allow this trick. According to this rule (and all other paradox rules), the fleet in the North Atlantic is just dislodged.

6.F.22. TEST CASE, SECOND ORDER PARADOX WITH TWO RESOLUTIONS

Two convoys are involved in a second order paradox.

England:

F Edinburgh - North Sea

F London Supports F Edinburgh - North Sea

France:

A Brest - London

F English Channel Convoys A Brest - London

Germany:

F Belgium Supports F Picardy - English Channel

F Picardy - English Channel

Russia:

A Norway - Belgium

F North Sea Convoys A Norway - Belgium

Without any paradox rule, there are two consistent resolutions. The supports of the English fleet in London and the German fleet in Picardy are not cut. That means that the French fleet in the English Channel and the Russian fleet in the North Sea are dislodged, which makes it impossible to cut the support. The other resolution is that the supports of the English fleet in London the German fleet in Picardy are cut. In that case the French fleet in the English Channel and the Russian fleet in the North Sea will survive and will not be dislodged. This gives the possibility to cut the support.

The 1971 paradox rule and the 2000 rule (see issue [4.A.2](#)) do not have an answer on this.

According to the 1982 rule, the supports are not cut which means that the French fleet in the English Channel and the Russian fleet in the North Sea are dislodged.

The Szykman (*which I prefer*), has the same result as the 1982 rule. The supports are not cut, the convoying armies fail to move, the fleet in Picardy dislodges the fleet in English Channel and the fleet in Edinburgh dislodges the fleet in the North Sea.

The DPTG rule has in this case the same result as the Szykman rule, because the failing of all convoys is a consistent resolution. So, the armies in Brest and Norway fail to move, while the fleets in Edinburgh and Picardy succeed to move.

When the 'All Hold' rule is used, the movement of the armies in Brest and Norway as the fleets in Edinburgh and Picardy will fail.

6.F.23. TEST CASE, SECOND ORDER PARADOX WITH TWO EXCLUSIVE CONVOYS

In this paradox there are two consistent resolutions, but where the two convoys do not fail or succeed at the same time. This fact is important for the DPTG resolution.

England:

F Edinburgh - North Sea

F Yorkshire Supports F Edinburgh - North Sea

France:

A Brest - London

F English Channel Convoys A Brest - London

Germany:

F Belgium Supports F English Channel

F London Supports F North Sea

Italy:

F Mid-Atlantic Ocean - English Channel

F Irish Sea Supports F Mid-Atlantic Ocean - English Channel

Russia:

A Norway - Belgium

F North Sea Convoys A Norway - Belgium

Without any paradox rule, there are two consistent resolutions. In one resolution, the convoy in the English Channel is dislodged by the fleet in the Mid-Atlantic Ocean, while the convoy in the North Sea succeeds. In the other resolution, it is the other way around. The convoy in the North Sea is dislodged by the fleet in Edinburgh, while the convoy in the English Channel succeeds.

The 1971 paradox rule and the 2000 rule (see issue [4.A.2](#)) do not have an answer on this.

According to the 1982 rule, the supports are not cut which means that the none of the units move.

The Szykman (*which I prefer*), has the same result as the 1982 rule. The convoying armies fail to move and the supports are not cut. Because of the failure to cut the support, no fleet succeeds to move.

When the 'All Hold' rule is used, the movement of the armies and the fleets all fail.

Since there is no consistent resolution where all convoys fail, the DPTG rule has the same result as the 'All Hold' rule. That means the movement of all units fail.

6.F.24. TEST CASE, SECOND ORDER PARADOX WITH NO RESOLUTION

As first order paradoxes, second order paradoxes come in two flavors, with two resolutions or no resolution.

England:

F Edinburgh - North Sea

F London Supports F Edinburgh - North Sea

F Irish Sea - English Channel

F Mid-Atlantic Ocean Supports F Irish Sea - English Channel

France:

A Brest - London

F English Channel Convoys A Brest - London

F Belgium Supports F English Channel

Russia:

A Norway - Belgium

F North Sea Convoys A Norway - Belgium

When no paradox rule is used, there is no consistent resolution. If the French support in Belgium is cut, the French fleet in the English Channel will be dislodged. That means that the support of London will not be cut and the fleet in Edinburgh will dislodge the Russian fleet in the North Sea. In this way the support in Belgium is not cut! But if the support in Belgium is not cut, the Russian fleet in the North Sea will not be dislodged and the army in Norway can cut the support in Belgium.

The 1971 paradox rule and the 2000 rule (see issue [4.A.2](#)) do not have an answer on this.

According to the 1982 rule, the supports are not cut which means that the French fleet in the English Channel will survive and but the Russian fleet in the North Sea is dislodged.

If the Szykman alternative is used (*which I prefer*), the supports are not cut and the convoying armies fail to move, which has the same result as the 1982 rule in this case.

When the 'All Hold' rule is used, the movement of the armies in Brest and Norway as the fleets in Edinburgh and the Irish Sea will fail.

Since there is no consistent resolution where all convoys fail, the DPTG has in this case the same result as the 'All Hold' rule.

6.G. TEST CASES, CONVOYING TO ADJACENT PLACES

6.G.1. TEST CASE, TWO UNITS CAN SWAP PLACES BY CONVOY

The only way to swap two units, is by convoy.

England:

A Norway - Sweden

F Skagerrak Convoys A Norway - Sweden

Russia:

A Sweden - Norway

In most interpretation of the rules, the units in Norway and Sweden will be swapped. However, if explicit adjacent convoying is used (see issue [4.A.3](#)), then it is just a head to head battle.

I prefer the 2000 rules, so the units are swapped.

6.G.2. TEST CASE, KIDNAPPING AN ARMY

Germany promised England to support to dislodge the Russian fleet in Sweden and it promised Russia to support to dislodge the English army in Norway. Instead, the joking German orders a convoy.

England:
A Norway - Sweden

Russia:
F Sweden - Norway

Germany:
F Skagerrak Convoys A Norway - Sweden

See issue [4.A.3](#).

When the 1982/2000 rulebook is used (*which I prefer*), England has no intent to swap and it is just a head to head battle where both units will fail to move. When explicit adjacent convoying is used (DPTG), the English move is not a convoy and again it is just a head to head battle where both units will fail to move. In all other interpretations, the army in Norway will be convoyed and swap its place with the fleet in Sweden.

6.G.3. TEST CASE, KIDNAPPING WITH A DISRUPTED CONVOY

When kidnapping of armies is allowed, a move can be sabotaged by a fleet that is almost certainly dislodged.

France:
F Brest - English Channel
A Picardy - Belgium
A Burgundy Supports A Picardy - Belgium
F Mid-Atlantic Ocean Supports F Brest - English Channel

England:
F English Channel Convoys A Picardy - Belgium

See issue [4.A.3](#). If a convoy always takes precedence over a land route (choice a), the move from Picardy to Belgium fails. It tries to convoy and the convoy is disrupted.

For choice b and c, there is no unit moving in opposite direction for the move of the army in Picardy. For this reason, the move for the army in Picardy is not by convoy and succeeds over land.

When the 1982 or 2000 rules are used (choice d), then it is not the "intent" of the French army in Picardy to convoy. The move from Picardy to Belgium is just a successful move over land.

When explicit adjacent convoying is used (DPTG, choice e), the order of the French army in Picardy is not a convoy order. So, it is just ordered over land, and that move succeeds.

This is an excellent example why the convoy route should not automatically have priority over the land route. It would just be annoying for the attacker and this situation is without fun. I prefer the 1982 rule with the 2000 clarification. According to these rules the move from Picardy succeeds.

6.G.4. TEST CASE, KIDNAPPING WITH A DISRUPTED CONVOY AND OPPOSITE MOVE

In the situation of the previous test case it was rather clear that the army didn't want to take the convoy. But what if there is an army moving in opposite direction?

France:

F Brest - English Channel

A Picardy - Belgium

A Burgundy Supports A Picardy - Belgium

F Mid-Atlantic Ocean Supports F Brest - English Channel

England:

F English Channel Convoys A Picardy - Belgium

A Belgium - Picardy

See issue [4.A.3](#). If a convoy always takes precedence over a land route (choice a), the move from Picardy to Belgium fails. It tries to convoy and the convoy is disrupted.

For choice b the convoy is also taken, because there is a unit in Belgium moving in opposite direction. This means that the convoy is disrupted and the move from Picardy to Belgium fails.

For choice c the convoy is not taken. Although, the unit in Belgium is moving in opposite direction, the army will not take a disrupted convoy. So, the move from Picardy to Belgium succeeds.

When the 1982 or 2000 rules are used (choice d), then it is not the "intent" of the French army in Picardy to convoy. The move from Picardy to Belgium is just a successful move over land.

When explicit adjacent convoying is used (DPTG, choice e), the order of the French army in Picardy is not a convoy order. So, it is just ordered over land, and that move succeeds.

Again an excellent example why the convoy route should not automatically have priority over the land route. It would just be annoying for the attacker and this situation is without fun. I prefer the 1982 rule with the 2000 clarification. According to these rules the move from Picardy succeeds.

6.G.5. TEST CASE, SWAPPING WITH INTENT

When one of the convoying fleets is of the same nationality of the convoyed army, the "intent" is to convoy.

Italy:

A Rome - Apulia

F Tyrrhenian Sea Convoys A Apulia - Rome

Turkey:

A Apulia - Rome

F Ionian Sea Convoys A Apulia - Rome

See issue [4.A.3](#). When the 1982/2000 rulebook is used (*which I prefer*), the convoy depends on the "intent". Since there is an own fleet in the convoy, the intent is to convoy and the armies in Rome and Apulia swap places.

For choices a, b and c of the issue there is also a convoy and the same swap takes place.

When explicit adjacent convoying is used (DPTG, choice e), then the Turkish army did not receive an order to move by convoy. So, it is just a head to head battle and both the army in Rome and Apulia will not move.

6.G.6. TEST CASE, SWAPPING WITH UNINTENDED INTENT

The intent is questionable.

England:

A Liverpool - Edinburgh

F English Channel Convoys A Liverpool - Edinburgh

Germany:

A Edinburgh - Liverpool

France:

F Irish Sea Hold

F North Sea Hold

Russia:

F Norwegian Sea Convoys A Liverpool - Edinburgh

F North Atlantic Ocean Convoys A Liverpool - Edinburgh

See issue [4.A.3](#).

For choice a, b and c the English army in Liverpool will move by convoy and consequentially the two armies are swapped.

For choice d, the 1982/2000 rulebook (*which I prefer*), the convoy depends on the "intent". England intended to convoy via the French fleets in the Irish Sea and the North Sea. However, the French did not order the convoy. The alternative route with the Russian fleets was unintended. The English fleet in the English Channel (with the convoy order) is not part of this alternative route with the Russian fleets. Since England still "intent" to convoy, the move from Liverpool to Edinburgh should be via convoy and the two armies are swapped. Although, you could argue that this is not really according to the clarification of the 2000 rulebook.

When explicit adjacent convoying is used (DPTG, choice e), then the English army did not receive an order to move by convoy. So, it is just a head to head battle and both the army in Edinburgh and Liverpool will not move.

6.G.7. TEST CASE, SWAPPING WITH ILLEGAL INTENT

Can the intent made clear with an impossible order?

England:

F Skagerrak Convoys A Sweden - Norway

F Norway - Sweden

Russia:

A Sweden - Norway

F Gulf of Bothnia Convoys A Sweden - Norway

See issue [4.A.3](#) and [4.E.1](#).

If for issue [4.A.3](#) choice a, b or c has been taken, then the army in Sweden moves by convoy and swaps places with the fleet in Norway.

However, if for issue [4.A.3](#) the 1982/2000 has been chosen (choice d), then the "intent" is important. The question is whether the fleet in the Gulf of Bothnia can express the intent. If the order for this fleet is considered illegal (see issue [4.E.1](#)), then this order must be ignored and

there is no intent to swap. In that case none of the units move.

If explicit convoying is used (DPTG, choice e of issue [4.A.3](#)) then the army in Sweden will take the land route and none of the units move.

I prefer the 1982/2000 rule and that any orders that can't be valid are illegal. So, the order of the fleet in the Gulf of Bothnia is ignored and can not show the intent. There is no convoy, so no unit will move.

6.G.8. TEST CASE, EXPLICIT CONVOY THAT ISN'T THERE

What to do when a unit is explicitly ordered to move via convoy and the convoy is not there?

France:

A Belgium - Holland via Convoy

England:

F North Sea - Helgoland Bight

A Holland - Kiel

The French army in Belgium intended to move convoyed with the English fleet in the North Sea. But the English changed their plans.

See issue [4.A.3](#).

If choice a, b or c has been taken, then the 'via Convoy' directive has no meaning and the army in Belgium will move to Holland.

If the 1982/2000 rulebook is used (choice d, *which I prefer*), the "via Convoy" has meaning, but only when there is both a land route and a convoy route. Since there is no convoy the "via Convoy" directive should be ignored. And the move from Belgium to Holland succeeds.

If explicit adjacent convoying is used (DPTG, choice e), then the unit can only go by convoy. Since there is no convoy, the move from Belgium to Holland fails.

6.G.9. TEST CASE, SWAPPED OR DISLODGED?

The 1982 rulebook says that whether the move is over land or via convoy depends on the "intent" as shown by the totality of the orders written by the player governing the army (see issue [4.A.3](#)). In this test case the English army in Norway will end in all cases in Sweden. But whether it is convoyed or not has effect on the Russian army. In case of convoy the Russian army ends in Norway and in case of a land route the Russian army is dislodged.

England:

A Norway - Sweden

F Skagerrak Convoys A Norway - Sweden

F Finland Supports A Norway - Sweden

Russia:

A Sweden - Norway

See issue [4.A.3](#).

For choice a, b and c the move of the army in Norway is by convoy and the armies in Norway and Sweden are swapped.

If the 1982 rulebook is used with the clarification of the 2000 rulebook (choice d, *which I prefer*), the intent of the English player is to convoy, since it ordered the fleet in Skagerrak to convoy. Therefore, the armies in Norway and Sweden are swapped.

When explicit adjacent convoying is used (DTPG, choice e), then the unit in Norway did not receive an order to move by convoy and the land route should be considered. The Russian army in Sweden is dislodged.

6.G.10. TEST CASE, SWAPPED OR AN HEAD TO HEAD BATTLE?

Can a dislodged unit have effect on the attackers area, when the attacker moved by convoy?

England:

A Norway - Sweden via Convoy

F Denmark Supports A Norway - Sweden

F Finland Supports A Norway - Sweden

Germany:

F Skagerrak Convoys A Norway - Sweden

Russia:

A Sweden - Norway

F Barents Sea Supports A Sweden - Norway

France:

F Norwegian Sea - Norway

F North Sea Supports F Norwegian Sea - Norway

Since England ordered the army in Norway to move explicitly via convoy and the army in Sweden is moving in opposite direction, only the convoyed route should be considered regardless of the rulebook used. It is clear that the army in Norway will dislodge the Russian army in Sweden. Since the strength of three is in all cases the strongest force.

The army in Sweden will not advance to Norway, because it can not beat the force in the Norwegian Sea. It will be dislodged by the army from Norway.

The more interesting question is whether French fleet in the Norwegian Sea is bounced by the Russian army from Sweden. This depends on the interpretation of issue [4.A.7](#). If the rulebook is taken literally (choice a), then a dislodged unit can not bounce a unit in the area where the attacker came from. This would mean that the move of the fleet in the Norwegian Sea succeeds. However, if choice b is taken (*which I prefer*), then a bounce is still possible, when there is no head to head battle. So, the fleet in the Norwegian Sea will fail to move.

6.G.11. TEST CASE, A CONVOY TO AN ADJACENT PLACE WITH A PARADOX

In this case the convoy route is available when the land route is chosen and the convoy route is not available when the convoy route is chosen.

England:

F Norway Supports F North Sea - Skagerrak

F North Sea - Skagerrak

Russia:

A Sweden - Norway

F Skagerrak Convoys A Sweden - Norway

F Barents Sea Supports A Sweden - Norway

See issue [4.A.2](#) and [4.A.3](#).

If for issue [4.A.3](#), choice b, c or e has been taken, then the move from Sweden to Norway is not a convoy and the English fleet in Norway is dislodged and the fleet in Skagerrak will not be dislodged.

If choice a or d (1982/2000 rule) has been taken for issue [4.A.3](#), then the move from Sweden to Norway must be treated as a convoy. At that moment the situation becomes paradoxical. When the 'All Hold' rule is used, both the army in Sweden as the fleet in the North Sea will not advance. In all other paradox rules the English fleet in the North Sea will dislodge the Russian fleet in Skagerrak and the army in Sweden will not advance.

I prefer the 1982 rule with the 2000 rulebook clarification concerning the convoy to adjacent places and I prefer the Szykman rule for paradox resolving. That means that according to these preferences the fleet in the North Sea will dislodge the Russian fleet in Skagerrak and the army in Sweden will not advance.

6.G.12. TEST CASE, SWAPPING TWO UNITS WITH TWO CONVOYS

Of course, two armies can also swap by when they are both convoyed.

England:

A Liverpool - Edinburgh via Convoy

F North Atlantic Ocean Convoys A Liverpool - Edinburgh

F Norwegian Sea Convoys A Liverpool - Edinburgh

Germany:

A Edinburgh - Liverpool via Convoy

F North Sea Convoys A Edinburgh - Liverpool

F English Channel Convoys A Edinburgh - Liverpool

F Irish Sea Convoys A Edinburgh - Liverpool

The armies in Liverpool and Edinburgh are swapped.

6.G.13. TEST CASE, SUPPORT CUT ON ATTACK ON ITSELF VIA CONVOY

If a unit is attacked by a supported unit, it is not possible to prevent dislodgement by trying to cut the support. But what, if a move is attempted via a convoy?

Austria:

F Adriatic Sea Convoys A Trieste - Venice

A Trieste - Venice via Convoy

Italy:

A Venice Supports F Albania - Trieste

F Albania - Trieste

First it should be mentioned that if for issue [4.A.3](#) choice b or c is taken, then the move from Trieste to Venice is just a move over land, because the army in Venice is not moving in opposite direction. In that case, the support of Venice will not be cut as normal.

In any other choice for issue [4.A.3](#), it should be decided whether the Austrian attack is considered to be coming from Trieste or from the Adriatic Sea. If it comes from Trieste, the support in Venice is not cut and the army in Trieste is dislodged by the fleet in Albania. If the Austrian attack is considered to be coming from the Adriatic Sea, then the support is cut and the army in Trieste will not be dislodged. See also issue [4.A.4](#).

First of all, I prefer the 1982/2000 rules for adjacent convoying. This means that I prefer the move from Trieste uses the convoy. Furthermore, I think that the two Italian units are still stronger than the army in Trieste. Therefore, I prefer that the support in Venice is not cut and that the army in Trieste is dislodged by the fleet in Albania.

6.G.14. TEST CASE, BOUNCE BY CONVOY TO ADJACENT PLACE

Similar to test case [6.G.10](#), but now the other unit is taking the convoy.

England:

A Norway - Sweden

F Denmark Supports A Norway - Sweden

F Finland Supports A Norway - Sweden

France:

F Norwegian Sea - Norway

F North Sea Supports F Norwegian Sea - Norway

Germany:

F Skagerrak Convoys A Sweden - Norway

Russia:

A Sweden - Norway via Convoy

F Barents Sea Supports A Sweden - Norway

Again the army in Sweden is bounced by the fleet in the Norwegian Sea. The army in Norway will move to Sweden and dislodge the Russian army.

The final destination of the fleet in the Norwegian Sea depends on how issue [4.A.7](#) is resolved. If choice a is taken, then the fleet advances to Norway, but if choice b is taken (*which I prefer*) the fleet bounces and stays in the Norwegian Sea.

6.G.15. TEST CASE, BOUNCE AND DISLODGE WITH DOUBLE CONVOY

Similar to test case [6.G.10](#), but now both units use a convoy and without some support.

England:

F North Sea Convoys A London - Belgium

A Holland Supports A London - Belgium

A Yorkshire - London

A London - Belgium via Convoy

France:

F English Channel Convoys A Belgium - London

A Belgium - London via Convoy

The French army in Belgium is bounced by the army from Yorkshire. The army in London move to Belgium, dislodging the unit there.

The final destination of the army in the Yorkshire depends on how issue [4.A.7](#) is resolved. If choice a is taken, then the army advances to London, but if choice b is taken (*which I prefer*) the army bounces and stays in Yorkshire.

6.G.16. TEST CASE, THE TWO UNIT IN ONE AREA BUG, MOVING BY CONVOY

If the adjudicator is not correctly implemented, this may lead to a resolution where two units end up in the same area.

England:

A Norway - Sweden

A Denmark Supports A Norway - Sweden

F Baltic Sea Supports A Norway - Sweden

F North Sea - Norway

Russia:

A Sweden - Norway via Convoy

F Skagerrak Convoys A Sweden - Norway

F Norwegian Sea Supports A Sweden - Norway

See decision details [5.B.6](#). If the 'PREVENT STRENGTH' is incorrectly implemented, due to the fact that it does not take into account that the 'PREVENT STRENGTH' is only zero when the unit is engaged in a head to head battle, then this goes wrong in this test case. The 'PREVENT STRENGTH' of Sweden would be zero, because the opposing unit in Norway successfully moves. Since, this strength would be zero, the fleet in the North Sea would move to Norway. However, although the 'PREVENT STRENGTH' is zero, the army in Sweden would also move to Norway. So, the final result would contain two units that successfully moved to Norway.

Of course, this is incorrect. Norway will indeed successfully move to Sweden while the army in Sweden ends in Norway, because it is stronger than the fleet in the North Sea. This fleet will stay in the North Sea.

6.G.17. TEST CASE, THE TWO UNIT IN ONE AREA BUG, MOVING OVER LAND

Similar to the previous test case, but now the other unit moves by convoy.

England:

A Norway - Sweden via Convoy

A Denmark Supports A Norway - Sweden

F Baltic Sea Supports A Norway - Sweden

F Skagerrak Convoys A Norway - Sweden

F North Sea - Norway

Russia:

A Sweden - Norway

F Norwegian Sea Supports A Sweden - Norway

Sweden and Norway are swapped, while the fleet in the North Sea will bounce.

6.G.18. TEST CASE, THE TWO UNIT IN ONE AREA BUG, WITH DOUBLE CONVOY

Similar to the previous test case, but now both units move by convoy.

England:

F North Sea Convoys A London - Belgium

A Holland Supports A London - Belgium

A Yorkshire - London

A London - Belgium

A Ruhr Supports A London - Belgium

France:

F English Channel Convoys A Belgium - London

A Belgium - London

A Wales Supports A Belgium - London

Belgium and London are swapped, while the army in Yorkshire fails to move to London.

6.H. TEST CASES, RETREATING

6.H.1. TEST CASE, NO SUPPORTS DURING RETREAT

Supports are not allowed in the retreat phase.

Austria:

F Trieste Hold

A Serbia Hold

Turkey:

F Greece Hold

Italy:

A Venice Supports A Tyrolia - Trieste

A Tyrolia - Trieste

F Ionian Sea - Greece

F Aegean Sea Supports F Ionian Sea - Greece

The fleet in Trieste and the fleet in Greece are dislodged. If the retreat orders are as follows:

Austria:

F Trieste - Albania

A Serbia Supports F Trieste - Albania

Turkey:

F Greece - Albania

The Austrian support order is illegal. Both dislodged fleets are disbanded.

6.H.2. TEST CASE, NO SUPPORTS FROM RETREATING UNIT

Even a retreating unit can not give support.

England:

A Liverpool - Edinburgh

F Yorkshire Supports A Liverpool - Edinburgh

F Norway Hold

Germany:

A Kiel Supports A Ruhr - Holland

A Ruhr - Holland

Russia:

F Edinburgh Hold

A Sweden Supports A Finland - Norway

A Finland - Norway

F Holland Hold

The English fleet in Norway and the Russian fleets in Edinburgh and Holland are dislodged. If the following retreat orders are given:

England:

F Norway - North Sea

Russia:

F Edinburgh - North Sea

F Holland Supports F Edinburgh - North Sea

Although the fleet in Holland may receive an order, it may not support (it is disbanded). The English fleet in Norway and the Russian fleet in Edinburgh bounce and are disbanded.

6.H.3. TEST CASE, NO CONVOY DURING RETREAT

Convoys during retreat are not allowed.

England:

F North Sea Hold

A Holland Hold

Germany:

F Kiel Supports A Ruhr - Holland

A Ruhr - Holland

The English army in Holland is dislodged. If England orders the following in retreat:

England:

A Holland - Yorkshire

F North Sea Convoys A Holland - Yorkshire

The convoy order is illegal. The army in Holland is disbanded.

6.H.4. TEST CASE, NO OTHER MOVES DURING RETREAT

Of course you may not do any other move during a retreat. But look if the adjudicator checks for it.

England:

F North Sea Hold

A Holland Hold

Germany:

F Kiel Supports A Ruhr - Holland

A Ruhr - Holland

The English army in Holland is dislodged. If England orders the following in retreat:

England:

A Holland - Belgium

F North Sea - Norwegian Sea

The fleet in the North Sea is not dislodge, so the move is illegal.

6.H.5. TEST CASE, A UNIT MAY NOT RETREAT TO THE AREA FROM WHICH IT IS ATTACKED

Well, that would be of course stupid. Still, the adjudicator must be tested on this.

Russia:

F Constantinople Supports F Black Sea - Ankara

F Black Sea - Ankara

Turkey:

F Ankara Hold

Fleet in Ankara is dislodged and may not retreat to Black Sea.

6.H.6. TEST CASE, UNIT MAY NOT RETREAT TO A CONTESTED AREA

Stand off prevents retreat to the area.

Austria:

A Budapest Supports A Trieste - Vienna

A Trieste - Vienna

Germany:

A Munich - Bohemia

A Silesia - Bohemia

Italy:

A Vienna Hold

The Italian army in Vienna is dislodged. It may not retreat to Bohemia.

6.H.7. TEST CASE, MULTIPLE RETREAT TO SAME AREA WILL DISBAND UNITS

There can only be one unit in an area.

Austria:

A Budapest Supports A Trieste - Vienna

A Trieste - Vienna

Germany:

A Munich Supports A Silesia - Bohemia

A Silesia - Bohemia

Italy:

A Vienna Hold

A Bohemia Hold

If Italy orders the following for retreat:

Italy:

A Bohemia - Tyrolia

A Vienna - Tyrolia

Both armies will be disbanded.

6.H.8. TEST CASE, TRIPLE RETREAT TO SAME AREA WILL DISBAND UNITS

When three units retreat to the same area, then all three units are disbanded.

England:

A Liverpool - Edinburgh

F Yorkshire Supports A Liverpool - Edinburgh

F Norway Hold

Germany:

A Kiel Supports A Ruhr - Holland

A Ruhr - Holland

Russia:

F Edinburgh Hold

A Sweden Supports A Finland - Norway

A Finland - Norway

F Holland Hold

The fleets in Norway, Edinburgh and Holland are dislodged. If the following retreat orders are given:

England:

F Norway - North Sea

Russia:

F Edinburgh - North Sea

F Holland - North Sea

All three units are disbanded.

6.H.9. TEST CASE, DISLODGED UNIT WILL NOT MAKE ATTACKERS AREA CONTESTED

An army can follow.

England:

F Helgoland Bight - Kiel

F Denmark Supports F Helgoland Bight - Kiel

Germany:

A Berlin - Prussia

F Kiel Hold

A Silesia Supports A Berlin - Prussia

Russia:

A Prussia - Berlin

The fleet in Kiel can retreat to Berlin.

6.H.10. TEST CASE, NOT RETREATING TO ATTACKER DOES NOT MEAN CONTESTED

An army can not retreat to the place of the attacker. The easiest way to program that, is to mark that place as "contested". However, this is not correct. Another army may retreat to that place.

England:
A Kiel Hold

Germany:
A Berlin - Kiel
A Munich Supports A Berlin - Kiel
A Prussia Hold

Russia:
A Warsaw - Prussia
A Silesia Supports A Warsaw - Prussia

The armies in Kiel and Prussia are dislodged. The English army in Kiel can not retreat to Berlin, but the army in Prussia can retreat to Berlin. Suppose the following retreat orders are given:

England:
A Kiel - Berlin

Germany:
A Prussia - Berlin

The English retreat to Berlin is illegal and fails (the unit is disbanded). The German retreat to Berlin is successful and does not bounce on the English unit.

6.H.11. TEST CASE, RETREAT WHEN DISLODGED BY ADJACENT CONVOY

If a unit is dislodged by an army via convoy, the question arises whether the dislodged army can retreat to the original place of the convoyed army. This is only relevant in case the convoy was to an adjacent place.

France:
A Gascony - Marseilles via Convoy
A Burgundy Supports A Gascony - Marseilles
F Mid-Atlantic Ocean Convoys A Gascony - Marseilles
F Western Mediterranean Convoys A Gascony - Marseilles
F Gulf of Lyon Convoys A Gascony - Marseilles

Italy:
A Marseilles Hold

If for issue [4.A.3](#) choice b or c has been taken, then the army in Gascony will not move with the use of the convoy, because the army in Marseilles does not move in opposite direction. This immediately means that the army in Marseilles may not move to Gascony when it dislodged by the army there.

For all other choices of issue [4.A.3](#), the army in Gascony takes a convoy and does not pass the border of Gascony with Marseilles (it went a complete different direction). Now, the result depends on which rule is used for retreating (see issue [4.A.5](#)).

I prefer the 1982/2000 rule for convoying to adjacent places. This means that the move of Gascony happened by convoy. Furthermore, I prefer that the army in Marseilles may retreat to Gascony.

6.H.12. TEST CASE, RETREAT WHEN DISLODGED BY ADJACENT CONVOY WHILE TRYING TO DO THE SAME

The previous test case can be made more extra ordinary, when both armies tried to move by convoy.

England:

A Liverpool - Edinburgh via Convoy

F Irish Sea Convoys A Liverpool - Edinburgh

F English Channel Convoys A Liverpool - Edinburgh

F North Sea Convoys A Liverpool - Edinburgh

France:

F Brest - English Channel

F Mid-Atlantic Ocean Supports F Brest - English Channel

Russia:

A Edinburgh - Liverpool via Convoy

F Norwegian Sea Convoys A Edinburgh - Liverpool

F North Atlantic Ocean Convoys A Edinburgh - Liverpool

A Clyde Supports A Edinburgh - Liverpool

If for issue [4.A.3](#) choice c has been taken, then the army in Liverpool will not try to move by convoy, because the convoy is disrupted. This has as consequence that army will just advance to Edinburgh by using the land route.

For all other choices of issue [4.A.3](#), both the army in Liverpool as in Edinburgh will try to move by convoy. The army in Edinburgh will succeed. The army in Liverpool will fail, because of the disrupted convoy. It is dislodged by the army of Edinburgh. Now, the question is whether the army in Liverpool may retreat to Edinburgh. The result depends on which rule is used for retreating (see issue [4.A.5](#)).

I prefer the 1982/2000 rule for convoying to adjacent places. This means that the army in Liverpool tries the disrupted convoy. Furthermore, I prefer that the army in Liverpool may retreat to Edinburgh.

6.H.13. TEST CASE, NO RETREAT WITH CONVOY IN MAIN PHASE

The places where a unit may retreat to, must be calculated during the main phase. Care should be taken that a convoy ordered in the main phase can not be used in the retreat phase.

England:

A Picardy Hold

F English Channel Convoys A Picardy - London

France:

A Paris - Picardy

A Brest Supports A Paris - Picardy

The dislodged army in Picardy can not retreat to London.

6.H.14. TEST CASE, NO RETREAT WITH SUPPORT IN MAIN PHASE

Comparable to the previous test case, a support given in the main phase can not be used in the

retreat phase.

England:

A Picardy Hold

F English Channel Supports A Picardy - Belgium

France:

A Paris - Picardy

A Brest Supports A Paris - Picardy

A Burgundy Hold

Germany:

A Munich Supports A Marseilles - Burgundy

A Marseilles - Burgundy

After the main phase the following retreat orders are given: England: A Picardy - Belgium

France: A Burgundy - Belgium

Both the army in Picardy and Burgundy are disbanded.

6.H.15. TEST CASE, NO COASTAL CRAWL IN RETREAT

You can not go to the other coast from where the attacker came from.

England:

F Portugal Hold

France:

F Spain(sc) - Portugal

F Mid-Atlantic Ocean Supports F Spain(sc) - Portugal

The English fleet in Portugal is destroyed and can not retreat to Spain(nc).

6.H.16. TEST CASE, CONTESTED FOR BOTH COASTS

If a coast is contested, the other is not available for retreat.

France:

F Mid-Atlantic Ocean - Spain(nc)

F Gascony - Spain(nc)

F Western Mediterranean Hold

Italy:

F Tunis Supports F Tyrrhenian Sea - Western Mediterranean

F Tyrrhenian Sea - Western Mediterranean

The French fleet in the Western Mediterranean can not retreat to Spain(sc).

6.I. TEST CASES, BUILDING

6.I.1. TEST CASE, TOO MANY BUILD ORDERS

Check how program reacts when someone orders too many builds.

Germany may build one:

Germany:
Build A Warsaw
Build A Kiel
Build A Munich

Program should not build all three, but handle it in an other way. See issue [4.D.4](#).

*I prefer that the build orders are just handled one by one until all allowed units are build.
According to this preference, the build in Warsaw fails, the build in Kiel succeeds and the build in Munich fails.*

6.I.2. TEST CASE, FLEETS CAN NOT BE BUILD IN LAND AREAS

Physical this is possible, but it is still not allowed.

Russia has one build and Moscow is empty.

Russia:
Build F Moscow

See issue [4.C.4](#). Some game masters will change the order and build an army in Moscow.

I prefer that the build fails.

6.I.3. TEST CASE, SUPPLY CENTER MUST BE EMPTY FOR BUILDING

You can't have two units in a sector. So, you can't build when there is a unit in the supply center.

Germany may build a unit but has an army in Berlin. Germany orders the following:

Germany:
Build A Berlin

Build fails.

6.I.4. TEST CASE, BOTH COASTS MUST BE EMPTY FOR BUILDING

If a sector is occupied on one coast, the other coast can not be used for building.

Russia may build a unit and has a fleet in St Petersburg(sc). Russia orders the following:

Russia:
Build A St Petersburg(nc)

Build fails.

6.I.5. TEST CASE, BUILDING IN HOME SUPPLY CENTER THAT IS NOT OWNED

Building a unit is only allowed when supply center is a home supply center and is owned. If not owned, build fails.

Russia captured Berlin in Fall. Left Berlin. Germany can not build in Berlin.

Germany:

Build A Berlin

Build fails.

6.I.6. TEST CASE, BUILDING IN OWNED SUPPLY CENTER THAT IS NOT A HOME SUPPLY CENTER

Building a unit is only allowed when supply center is a home supply center and is owned. If it is not a home supply center, the build fails.

Germany owns Warsaw, Warsaw is empty and Germany may build one unit.

Germany:
Build A Warsaw

Build fails.

6.I.7. TEST CASE, ONLY ONE BUILD IN A HOME SUPPLY CENTER

If you may build two units, you can still only build one in a supply center.

Russia owns Moscow, Moscow is empty and Russia may build two units.

Russia:
Build A Moscow
Build A Moscow

The second build should fail.

6.J. TEST CASES, CIVIL DISORDER AND DISBANDS

6.J.1. TEST CASE, TOO MANY REMOVE ORDERS

Check how program reacts when someone orders too disbands.

France has to disband one and has an army in Paris and Picardy.

France:
Remove F Gulf of Lyon
Remove A Picardy
Remove A Paris

Program should not disband both Paris and Picardy, but should handle it in a different way. See also issue [4.D.6](#).

I prefer that the disband orders are handled one by one. According to the preference, the removal of the fleet in the Gulf of Lyon fails (no fleet), the removal of the army in Picardy succeeds and the removal of the army in Paris fails (too many disbands).

6.J.2. TEST CASE, REMOVING THE SAME UNIT TWICE

If you have to remove two units, you can always try to trick the computer by removing the same unit twice.

France has to disband two and has an army in Paris.

France:

Remove A Paris

Remove A Paris

Program should remove army in Paris and remove another unit by using the civil disorder rules.

6.J.3. TEST CASE, CIVIL DISORDER TWO ARMIES WITH DIFFERENT DISTANCE

When a player forgets to disband a unit, the civil disorder rules must be applied. When two armies have different distance from the home supply centers, then the army with the greatest distance has to be removed.

Russia has to remove one.

Russia has armies in Livonia and Sweden.

Russia does not order a disband.

The army in Sweden is removed.

6.J.4. TEST CASE, CIVIL DISORDER TWO ARMIES WITH EQUAL DISTANCE

If two armies have equal distance from the home supply centers, then alphabetical order is used.

Russia has to remove one.

Russia has armies in Livonia and Ukraine.

Russia does not order a disband.

Both armies have distance one. The Livonia army is removed, because it appears first in alphabetical order.

6.J.5 TEST CASE, CIVIL DISORDER TWO FLEETS WITH DIFFERENT DISTANCE

If two fleets have different distance from the home supply centers, then the fleet with the greatest distance has to be removed. Note that fleets can not go over land.

Russia has to remove one.

Russia has fleets in Skagerrak and Berlin.

Russia does not order a disband.

The distance of the fleet in Berlin is three (the fleet can not go to Warsaw), the fleet in Skagerrak has distance two (via Norway). So, the fleet in Berlin has to be removed.

6.J.6. TEST CASE, CIVIL DISORDER TWO FLEETS WITH EQUAL DISTANCE

Alphabetical order is used, when two fleets have equal distance to the home supply centers.

Russia has to remove one.

Russia has fleets in Berlin and Helgoland Bight.

Russia does not order a disband.

The distances of both fleets to one of the home supply centers is three. The fleet in the Berlin is removed, because it appears first in alphabetical order. This also tests whether fleets can not go over land. If they could go over land, the distance of Berlin would be two (going to Warsaw) and

the fleet in the Helgoland Bight would have incorrectly be removed.

6.J.7. TEST CASE, CIVIL DISORDER TWO FLEETS AND ARMY WITH EQUAL DISTANCE

In removal, the fleet has precedence over an army. In this case there are two fleets, to make the test more complex.

Russia has to remove one.

Russia has an army in Bohemia, a fleet in Skagerrak and a fleet in the North Sea.

Russia does not order a disband.

The distances of the army and the fleets to one of the home supply centers are two. The fleets take precedence above the army (although the army is alphabetical first). The fleet in the North Sea is alphabetical first, compared to Skagerrak and has to be removed.

6.J.8. TEST CASE, CIVIL DISORDER A FLEET WITH SHORTER DISTANCE THEN THE ARMY

If the fleet has a shorter distance than the army, the army is removed.

Russia has to remove one.

Russia has an army in Tyrolia and a fleet in the Baltic Sea.

Russia does not order a disband.

The distances of the army to Warsaw is three while the distance of the fleet is two. So, the army is removed.

6.J.9. TEST CASE, CIVIL DISORDER MUST BE COUNTED FROM BOTH COASTS

Distance must be calculated from both coasts.

Russia has to remove one.

Russia has an army in Tyrolia and a fleet in the Baltic Sea.

Russia does not order a disband.

The distance of the fleet to St Petersburg(nc) is three but to St Petersburg(sc) is two. So, the army in Tyrolia must be removed.

Russia has to remove one.

Russia has an army in Tyrolia and a fleet in Skagerrak.

Russia does not order a disband.

The distance of the fleet to St Petersburg(sc) is three but to St Petersburg(nc) is two. So, the army in Tyrolia must be removed.

6.J.10. TEST CASE, CIVIL DISORDER COUNTING CONVOYING DISTANCE

For armies the distance must be calculated by taking land areas, coastal areas as sea areas.

Italy has to remove one.

Italy has a fleet in the Ionian Sea and armies in Greece and Silesia.

Italy does not order a disband.

The distance from Greece to one of the Italian home supply center is three over land. However, using a convoy the distance is one or two (depending how you count, see issue [4.D.8](#)). Anyway, the army in Silesia has to be removed.

6.J.11. TEST CASE, CIVIL DISORDER COUNTING DISTANCE WITHOUT CONVOYING FLEET

If there is no convoying fleet the result depends on the interpretation of the rules.

Italy has to remove one.

Italy has armies in Greece and Silesia.

Italy does not order a disband.

The distance from Greece to one of the Italian home supply centers is one, two or three (depending how you count, see issue [4.D.8](#)).

I prefer that sea areas just add one to the distance. According to this preference, the distance is two and the army in Silesia has to be removed.

7. COLONIAL VARIANT

The rulebook of the second print of the colonial variant is used as source for these test case. Note that the regular rules in the Colonial rulebook are not based on the 1982 rules as you might expect, but on the 1971 rules.

The errata published by Avalon Hill is used as additional source (The General, Volume 30, Number 4). The exact text of this errata is as follows:

Errata published by Avalon Hill

Map Addition: Kyoto is starting Colony for Japan. There should be a white circled dot in Kyoto.

Map Change: Constantinople is a province of Turkey. It should be printed in the same white colour as the rest of Turkey.

The correct abbreviation for the Andaman Sea is "AND.S" as per Rule 13.0; the abbreviation found on the conference map is incorrect.

Rule Change: 9.11: Delete "China may not enter Hong Kong until

the turn after another power has occupied it at the end of a counting move (even-numbered turns)."

9.34: Delete "A EGY S SUD"

9.35: Change "Turkey A EGY S British F RS-MED" to "Turkey F EGY S British F RS-MED"

Clarifications: TRANS-SIBERIAN RAILROAD

9.21 Only the Russian player may use the TSR. The Russian player may not allow another power to use it.

9.23 This rule restricts the attack capability of units using the TSR

A unit using the TSR may attack:

- (1) a province that is unoccupied at the start of the turn. Normal rules of conflict would apply,
- (2) a province that is occupied at the start of the turn but was made empty during the current turn as a result of that unit moving out. Normal rules of conflict would apply, or
- (3) a province that is occupied at the start of the turn, but if the unit remains in place then the attack will be unsuccessful (even with support) and the unit will have to stop in the nearest empty province along the line of the railroad before the enemy-occupied province (e.g. An army in Moscow with orders A MOS-TSR-VLA with an enemy unit holding in Vladivostok results in the Moscow army stopping in Irkutsk --the order is legal, in the hope that the province will be vacated, but unsuccessful).

Note: So long as an enemy unit remains in place it may not be successfully attacked that turn by a unit using the TSR. This still applies even if that enemy unit is attacked by a third power that turn and forced to retreat, for example: Russia A MOS-TSR-VLA China A VLA HOLD Japan A SEO-VLA, F OS S A SEO-VLA

The Russian unit stops in Irkutsk. The Chinese unit retreats (not to Irkutsk or Seoul). The Japanese unit from Seoul takes Vladivostok.

9.241 The presence of a foreign power in a province along the line of the TSR blocks its use beyond that point. However, if the unit later moves off this province thus unblocking the line, the TSR may again function normally, that is, control of the province reverts to Russia (it is assumed the partisans rebuild the line).

EXCEPTION: If a supply center on the line of the TSR (Moscow, Omsk, Vladivostok) is captured by an enemy power and later vacated, ownership remains with that power and the TSR is out at that point until Russia is able to recapture the province. Only then is the line "open" again. For example, if China owns Omsk but has vacated it, a Russian unit using the TSR from Vladivostok could move to Omsk, but no further that turn.

9.25 A curious example of this rule applies if an enemy unit attacks from one province to another along the line of the TSR at the same time that a Russian unit is railed through these provinces in the same direction such as:

Russia A VLA-TSR-OMSK China A KRA-OMSK

This results in a standoff in Omsk. The Chinese unit stays in Krasnoyarsk and the Russian unit stays in Irkutsk. The logic being that Krasnoyarsk is left empty by the Chinese at the time the Russian unit moves through. Thus both units attack Omsk and cause a standoff. NOTE: The above result would also have occurred if the Russian unit had been ordered to Perm or Moscow because the same standoff would still occur in Omsk.

SUGGESTED ADDITION TO MAP The island of Sakhalin is contained entirely within the Okhotsk Sea and a unit there cannot be eliminated, so it is suggested that a - land bridge - arrow should connect Otaru and Sakhalin thus allowing a supported attack from Otaru and Okhotsk Sea to take Sakhalin.

CEBU Cebu is one space containing both land and sea. It can be occupied by either an army or a fleet. An army can use the - land bridges - to move from Manila to Cebu and Cebu to Davao

(and vice versa). The game spaces adjacent to Cebu are: Manila, Middle Pacific, Lower Pacific, Davao, Sulu Sea and Luzon Strait.

Trans-Siberian Railroad

Q. In the following situation, where do A Mos and A Omsk end up? Russian orders: A Mos-TSR-Vla, A Omsk-Kra, A Vla-Seo; Chinese orders: A Mac-Irk.

A. The standoff in Kra means that A Omsk does not move and A Mos stops in Perm.

Q. If Russia orders A Mos-TRS-Vla and China orders A Mac-Irk and A Mon-Kra, what happens?

A. A Mon-Kra fails, A Mac-Irk succeeds, A Mos stops in Omsk.

Additional assumptions

The additional rules and the errata do not explain everything. Therefore the following assumptions are made in the resolutions of the test cases (note, these are disputable):

- A move with the Trans-Siberian Railroad can bounce on a Russian unit.
This is not obvious, since a Russian army can rail through another Russian army. This follows implicitly from an example in the errata.
- A Russian army can rail through another Russian army as long it is not dislodged. The army riling through will not be part of a beleaguered garrison.
- A Russian army using the Trans-Siberian Railroad can only receive support on the final part of the move.
Since there is no notation for support on other parts of the move, it is assumed that this is not possible.
- A move with the Trans-Siberian Railroad can not cut support.
According to the errata an attack will be unsuccessful when a unit stays in place. So, it is assumed that it can not cut support.
- When a unit is ordered to go with the Trans-Siberian Railroad and the first place the unit has to pass contains another unit moving in the opposite direction, then the Trans-Siberian Railroad order should be treated as a normal move to the first place the unit wanted to pass, but without the ability dislodging the other unit.
So, in such case there is just a head to head battle (without the ability to dislodge by the unit using the Trans-Siberian Railroad).
- In case of a paradoxical situation which includes a move with the Trans-Siberian Railroad, at least the last part of the move that is part of the paradoxical situation fails, but is still capable of bouncing other units.
When this rule is applied it may result that earlier parts of the move with the Trans-Siberian railroad also fail.
- The Trans-Siberian Railroad can not be used during retreat.
- When two units are ordered to use the Trans-Siberian Railroad, they both hold (able to receive a hold support).
- Only one unit can get permission to go through to the Suez Canal.
This means that if there is an explicit permission and a possible implicit permission, the implicit permission is denied. If there are two possible implicit permissions, then both permissions are denied.
- In case of a paradoxical situation which includes the Suez Canal, the move through the Suez Canal fails and the fleet moving through the Suez Canal does not have any effect on

its ordered destination.

This is an extension of the Szykman rule for resolving paradoxes.

- In case there is combination of the Trans-Siberian Railroad, the Suez Canal and a possibly disrupted convoy in a paradox, all paradox rules should be applied at the same time. So, there is no priority for the paradox rules for the Trans-Siberian Railroad, the Suez Canal and disrupted convoys.

The Sakhalin story

On the first print of the Colonial variant map there is no land bridge between Sakhalin and Otaru and there is no land bridge between Sakhalin and Vladivostok. This introduces the problem that a unit in Sakhalin can not be dislodged, because Sakhalin has only one neighbor (Okhotsk Sea). Since this area has also a supply center, the area can supply itself.

In the second print of the Colonial variant map and in the errata, Avalon Hill "corrected" this problem by adding a land bridge between Sakhalin and Otaru. However, this introduced a new problem. Two units in Sakhalin and Otaru can support each other and supply themselves forever. And some argue that this situation is even worse than the original problem.

There are several ways to solve these problems. One of the most common played versions is the "Moulmein Convention". In that convention there is a second additional land bridge between Otaru and Akita. However, according to Peter Hawes, the lead designer of the Colonial variant, the original design contained a land bridge between Sakhalin and Vladivostok (and no land bridge between Sakhalin and Otaru). Avalon Hill omitted this land bridge by mistake. You should realize that this is a large change to the map and Avalon Hill never made an errata in this direction. Some people argue that a land bridge between Sakhalin and Vladivostok is very bad, because Japan can be denied any build in the first build turn. However, that this is not different from the standard game where at least England and Russia can be denied any build in the first build turn.

I prefer the land bridge between Sakhalin and Vladivostok. I think that the many land bridges in the Moulmein Convention destroys the interesting geographical situation in that area and makes it too easy for Japan to defend. A common complaint is that Japan is too strong (the only way to beat Japan is to start bashing it from the start of the game). With the land bridge between Sakhalin and Vladivostok, Russia has to make a difficult choice. It can take Sakhalin at the first turn (with a rather useless army on Sakhalin) or try to move the army in the direction of Seoul and Fusan. I think that this makes the situation much more interesting and gives a better balance to the game.

7.A. TEST CASES, HONG KONG OPTIONAL RULE

7.A.1 TEST CASE, HONG KONG IS NOT A SUPPLY CENTER FOR CHINA

Move Chinese army to Hong Kong in fall. China should not have the right to build a unit for the Hong Kong supply center.

7.A.2. TEST CASE, HONG KONG IS A SUPPLY CENTER FOR OTHER COUNTRIES

We know it is for Britain. But for France? Move French army to Hong Kong in fall. France should

have the right to build a unit for the additional Hong Kong supply center.

7.A.3. TEST CASE, HONG KONG DOES NOT COUNT FOR VICTORY FOR CHINA

Set victory condition to 30 (long game). Let China own 29 supply centers which does not include Hong Kong. Let China own Hong Kong. China has not won yet.

7.B. TEST CASE, TRANS SIBERIAN RAILROAD OPTIONAL RULE

7.B.1. TEST CASE, TSR BOUNCING ON ARMY OF OTHER COUNTRY

Along the railroad, the army can bounce.

Russia:

A Moscow - TSR - Irkutsk

Turkey:

A Orenburg - Omsk

Armies will bounce in Omsk. The Russian army will end in Perm and the Turkish army will stay in Orenburg.

7.B.2. TEST CASE, TSR CAN NOT PASS A SUPPORTED ARMY

If along the railroad, another armies move in with support, the army will bounce.

Russia:

A Moscow - TSR - Irkutsk

Turkey:

A Orenburg - Omsk

A Akmolinsk Supports A Orenburg - Omsk

The Russian army will end in Perm and the Turkish will move to Omsk.

7.B.3. TEST CASE, TSR CAN MOVE THROUGH RUSSIAN ARMY

If along the railroad, a Russian army is holding, the army using the TSR should move through the army.

Russia:

A Moscow - TSR - Vladivostok

A Omsk Hold

Army should pass through the army in Omsk and end in Vladivostok.

7.B.4, TEST CASE, TSR BOUNCES ON RUSSIAN ARMY

If along the railroad, a Russian army is moving in, the army using the TSR will not move through the army, but will bounce on it.

Russia:

A Moscow - TSR - Vladivostok

A Akmolinsk - Omsk

Both armies bounce in Omsk. The army in Moscow will end in Perm and the army in Akmolinsk will stay in Akmolinsk.

7.B.5. TEST CASE, BOUNCING WHILE PASSING THROUGH A RUSSIAN ARMY

If an army using the TSR is passing through another Russian, but can not go further, it should not end with two units in the same sector.

Russia:

A Moscow - TSR - Vladivostok

A Omsk Hold

China:

A Mongolia - Krasnoyarsk

The Russian army and the Chinese army bounce in Krasnoyarsk. The Russian army will end in Perm and the Chinese army will stay in Mongolia.

7.B.6. TEST CASE, TSR CAN PASS WHEN TWO ARMIES BOUNCE

When two armies bounce on one of the sectors on the TSR, the army using the TSR can still pass.

Russia:

A Moscow - TSR - Vladivostok

A Semipalatinsk - Krasnoyarsk

China:

A Mongolia - Krasnoyarsk

The Russian and Chinese army bounce in Krasnoyarsk. This makes it possible that the army using the TSR ends in Vladivostok.

7.B.7. TEST CASE, TSR CAN PASS WHEN TWO ARMIES WITH EQUAL SUPPORT BOUNCE

Comparable with the previous test case, but now the bouncing armies have support.

Russia:

A Moscow - TSR - Vladivostok

China:

A Manchuria Supports A Seoul - Vladivostok

A Seoul - Vladivostok

Japan:

F Okhotsk Sea - Vladivostok

F Sea of Japan Supports F Okhotsk Sea - Vladivostok

Since the Japanese fleet and the Chinese army bounce in Vladivostok, the army from Moscow can slip through and end in Vladivostok.

7.B.8. TEST CASE, TSR BOUNCES WHEN OTHER FORCES ARE UNBALANCED

Comparable with the previous test case, but now the two other moving units are unbalanced and

the TSR can not take advantage of that.

Russia:

A Moscow - TSR - Vladivostok

A Manchuria Supports A Moscow - Vladivostok

China:

A Seoul - Vladivostok

Japan:

F Okhotsk Sea - Vladivostok

F Sea of Japan Supports F Okhotsk Sea - Vladivostok

Now the Russian army from Moscow bounces with the fleet from Japan. And the Russian army will end in Irkutsk

7.B.9. TEST CASE, TSR CAN PASS THROUGH AS LONG AS RUSSIAN ARMY HOLDS

When an army using the TSR passes through another Russian army on the railroad, and that army holds, it will pass as long as the Russian holds. Even when it is under attack. The army using the TSR is not part of a beleaguered garrison.

Russia:

A Moscow - TSR - Vladivostok

A Krasnoyarsk Hold

China:

A Mongolia - Krasnoyarsk

The army from Moscow will not bounce on the army from Mongolia, because the army in Krasnoyarsk is defending the place.

7.B.10. TEST CASE, TSR CAN PASS EVEN WHEN RUSSIAN ARMY IS MOVING AWAY

When an army using the TSR passes through another Russian army on the railroad, and that army tries to move away, it can still have benefit from the army moving away, when that army bounces.

Russia:

A Moscow - TSR - Vladivostok

A Krasnoyarsk - Semipalatinsk

China:

A Mongolia - Krasnoyarsk

A Urumchi - Semipalatinsk

The army in Krasnoyarsk bounces in Semipalatinsk and remains in Krasnoyarsk, it can still help the army from Moscow passing through Krasnoyarsk. The army from Moscow will end in Vladivostok.

7.B.11. TEST CASE, TSR CAN ONLY BOUNCE ONCE

When an army using the TSR bounces, it has no effect on the remaining part of the move.

Russia:

A Moscow - TSR - Vladivostok

China:

A Mongolia - Krasnoyarsk

A Manchuria - Irkutsk

The Russian army will bounce in Krasnoyarsk and end in Omsk. The Chinese army in Mongolia will bounce and stay in Mongolia. The army in Manchuria will just move to Irkutsk.

7.B.12. TEST CASE, COMPLEX BOUNCE WITH TSR

The adjudicator can easily choke on a bounce of the departure of the TSR.

Russia:

A Moscow - TSR - Vladivostok

A Perm - Orenburg

Britain:

A Tashkent - Orenburg

A Akmolinsk - Omsk

Turkey:

A Baku - Moscow

The army from Moscow can pass through Perm, but will bounce on the British army in Omsk. It can not end in Perm, because the army in Perm bounces also. The army has to stay in Moscow. This means that the move of Turkey will fail.

7.B.13. TEST CASE, A MOVE WITH THE TSR CAN NOT DISLODGE UNIT

A move with the TSR is not an attack, so it can not dislodge a unit.

Russia:

A Moscow - TSR - Vladivostok

A Irkutsk Supports A Moscow - Vladivostok

China:

A Vladivostok Hold

Although the support from Irkutsk is possible, the Chinese army in Vladivostok is not dislodged.

7.B.14. TEST CASE, A MOVE WITH THE TSR CAN NOT CUT SUPPORT

A move with the TSR is not an attack, so it can not cut support.

Russia:

A Moscow - TSR - Vladivostok

A Seoul Hold

China:

A Vladivostok Supports A Manchuria - Seoul

A Manchuria - Seoul

The support of Vladivostok is not cut. So, the Russian army in Seoul is dislodged.

7.B.15. TEST CASE, A MOVE WITH THE TSR CAN RECEIVE A SUPPORT TO WIN A BATTLE

Although a move with the TSR is not an attack and can not dislodge a unit, it can win a battle when the sector is initially empty. Note, that a move with the TSR can only receive support on the last part of the move.

Russia:

A Moscow - TSR - Vladivostok

A Irkutsk Supports A Moscow - Vladivostok

Japan:

F Okhotsk Sea - Vladivostok

The Russian move with the TSR succeeds and ends in Vladivostok. The Japanese fleet will stay in the Okhotsk Sea.

7.B.16. TEST CASE, A MOVE WITH THE TSR CAN PREVENT DISLODGE

Although a move with the TSR is not an attack and can not dislodge a unit, it can prevent that it is dislodged by another unit.

Russia:

A Moscow - TSR - Vladivostok

A Manchuria Supports A Moscow - Vladivostok

Japan:

F Okhotsk Sea - Vladivostok

F Sea of Japan Supports F Okhotsk Sea - Vladivostok

China:

A Vladivostok Hold

The Russian move with the TSR prevents that the Japanese fleet in the Okhotsk Sea will dislodge the Chinese fleet in Vladivostok.

7.B.17. TEST CASE, CIRCULAR MOVEMENT WITH THE TSR IS POSSIBLE

Well, look if the adjudicator can handle circular movement.

Russia:

A Omsk Hold

A Krasnoyarsk - TSR - Moscow

China:

A Perm - Orenburg

A Orenburg - Akmolinsk

A Akmolinsk - Krasnoyarsk

Turkey:

A Odessa - Moscow

The Russian army in Krasnoyarsk will bounce in Moscow on the Turkish army. But the Russian army and the Chinese armies can still make a circular movement. All Chinese armies will move and the Russian army will end in Perm.

7.B.18. TEST CASE, TSR CAN NOT PASS AN UNOWNED SUPPLY CENTER

It must recapture supply center first (Avalon Hill errata).

Omsk is not owned by Russia.

Russia:

A Moscow - TSR - Vladivostok

Move will end in Omsk.

7.B.19. TEST CASE, TSR MAY LEAVE AN UNOWNED SUPPLY CENTER

An army may leave an unowned supply center on TSR. This will probably only occur when Russia cooperates with another power and does not want to take over the supply center.

Omsk is not owned by Russia.

Russia:

A Omsk - TSR - Vladivostok

Move will end in Vladivostok.

7.B.20. TEST CASE, TSR CAN PASS AN UNOWNED SUPPLY CENTER WHEN ANOTHER ARMY IS HOLDING

If an army is holding an unowned supply center, the TSR does not need to stop there.

Omsk is not owned by Russia.

Russia:

A Moscow - TSR - Vladivostok

A Omsk Hold

Army in Moscow will end in Vladivostok.

7.B.21. TEST CASE, TSR CAN NOT PASS AN UNOWNED SUPPLY CENTER WHEN ARMY IS MOVING AWAY

When another army holding the unowned supply center moves away, the TSR should recapture it.

Omsk is not owned by Russia.

Russia:

A Moscow - TSR - Vladivostok

A Omsk - Akmolinsk

Army in Moscow must stop in Omsk to capture the supply center.

7.B.22. TEST CASE, TSR CAN PASS AN UNOWNED SUPPLY CENTER WHEN ARMY MOVING AWAY BOUNCES

Well when the army bounces, the TSR can just go on.

Omsk is not owned by Russia.

Russia:

A Moscow - TSR - Vladivostok

A Omsk - Akmolinsk

Britain:
A Tashkent - Akmolinsk

The army from Moscow does not need to stop in Omsk, since the army there bounces. The army from Moscow ends in Vladivostok.

7.B.23. TEST CASE, SIMPLE TWO ARMY TSR PARADOX

A Russian army can rail through another army. But when that army moves, it bounces.

Russia:
A Moscow - TSR - Vladivostok
A Omsk - Krasnoyarsk

The part from Perm to Omsk and Omsk to Krasnoyarsk is part of the paradoxical situation. The part from Omsk to Krasnoyarsk fails, but is still able to bounce the army that comes from Omsk. This means that the TSR move ends in Perm and the army Omsk stays in Omsk

7.B.24. TEST CASE, COMPLEX TSR PARADOX

This paradox involves more armies.

Russia:
A Moscow - TSR - Vladivostok

Britain:
A Perm - Orenburg
A Orenburg - Akmolinsk
A Akmolinsk - Krasnoyarsk

China:
A Manchuria - Irkutsk

Whether the army Moscow can reach Krasnoyarsk is part of the paradoxical situation. According to the paradox rule, the part from Omsk to Krasnoyarsk fails, but is still able to bounce the British army in Akmolinsk. When this is decided, we continue with the normal rules. The move from Perm to Orenburg will fail and that means that the army in Moscow can not pass Perm and will stay in Moscow. The Chinese move from Manchuria to Irkutsk is not part of the paradoxical situation. This move will succeed.

7.B.25. TEST CASE, TSR SUPPLY CENTER PARADOX

The need to recapture the supply center can cause a paradox.

Omsk is not owned by Russia.

Russia:
A Moscow - TSR - Vladivostok
A Omsk - Akmolinsk
A Krasnoyarsk Hold

China:
A Akmolinsk - Semipalatinsk
A Semipalatinsk - Urumchi

A Urumchi - Mongolia
A Mongolia - Irkutsk

There are two resolutions to this set of orders in which all rules are obeyed. You can say that all Chinese armies move and the Russian army in Omsk moves. In this way the TSR has to stop in Omsk to recapture the Supply center. The other resolution is that the army in Omsk does not move. In that case, the TSR can bounce in Irkutsk with the Chinese army. And this will indeed cause the army in Omsk not to move. The paradox rule says the last part of the paradoxical situation (the part from Krasnoyarsk to Irkutsk) fails but is still able to bounce another army. So, all Chinese armies will not move and the Russian army in Moscow will end in Perm.

7.B.26. TEST CASE, BALANCED HEAD TO HEAD BATTLE WITH TSR

Look if the adjudicator can handle this.

Russia:
A Moscow - TSR - Omsk
A Perm - Moscow

Both armies fail to move.

7.B.27. TEST CASE, UNBALANCED HEAD TO HEAD BATTLE WITH TSR

Now the army is attacked in its departure place.

Russia:
A Moscow - TSR - Omsk

Britain:
A Perm - Moscow
A Orenburg - Perm
A Baku Supports A Perm - Moscow

The British army in Perm will dislodge the army in Moscow and the army in Orenburg will advance to Perm (not bounced).

7.B.28. TEST CASE, SUPPORTED HEAD TO HEAD BATTLE WITH TSR

A supported head to head battle must also be handled correctly.

Britain:
A Perm - Moscow
A Orenburg Supports A Perm - Moscow

Russia:
A Moscow - TSR - Perm
A Omsk Supports A Moscow - Perm

No unit will move.

7.B.29. TEST CASE, TSR CAN'T DISLODGE IN HEAD TO HEAD BATTLE

Although the TSR can win a head to head battle, it can not dislodge a unit.

Britain:
A Perm - Moscow

Russia:
A Moscow - TSR - Perm
A Omsk Supports A Moscow - Perm

No unit will move.

7.B.30. TEST CASE, DEPARTURE PLACE DISLODGE WITH SUPPORT FROM ARMY ON TSR

Now, the support is coming from the army that is on the TSR.

Russia:
A Moscow - TSR - Omsk

Britain:
A Perm Supports A Orenburg - Moscow
A Orenburg - Moscow

The British army in Orenburg will dislodge the army in Moscow.

7.B.31. TEST CASE, TSR PARADOX WITH DEPARTING TRAIN

Whether the train leaves or not, can cause a paradox.

Russia:
A Moscow - TSR - Krasnoyarsk
A Perm Hold
A Orenburg - Moscow
A Omsk - Orenburg

Britain:
A Akmolinsk - Omsk

If the army in Omsk stays, the TSR can slip trough and end in Krasnoyarsk. But in that case the other Russian armies can advance and the army in Omsk does not stay. If the army in Omsk leaves, the TSR bounces on the British army. The army has to stay in Moscow. This makes it impossible that the army in Omsk leaves. According to the paradox rule, the last part of the paradoxical situation (that is the part from Perm to Omsk) fails but is still able to bounce another army. So, the army in Moscow stays in Moscow and the British army in Akmolinsk stays in Akmolinsk.

7.B.32. TEST CASE, NO RETREAT WITH TSR

It is not allowed to use a convoy during retreat. Assume the same for the Trans-Siberian Railroad.

Russia:
A Moscow Hold

Turkey:
A Odessa - Moscow
A Baku Supports A Odessa - Moscow

Army in Moscow is dislodged. When Russia retreats as follows:

A Moscow TSR Vladivostok

This is illegal and the army in Moscow is disbanded.

7.B.33. TEST CASE, ONLY ONE UNIT CAN USE THE TSR

A short circuit occurs when two units are starting to use the Trans-Siberian Railroad.

Russia:

A Moscow - TSR - Omsk

A Vladivostok - TSR - Krasnoyarsk

Both moves fail (they can receive support to hold).

7.B.34. TEST CASE, ONLY RUSSIA MAY USE THE TSR

Other countries are not able to control this advanced technology.

Turkey:

A Moscow - TSR - Perm

The move fails (without the attempt to use the Trans-Siberian Railroad, the move would succeed).

7.C. TEST CASES, SUEZ CANAL OPTIONAL RULE

7.C.1. TEST CASE, FLEET CAN NOT TAKE SUEZ CANAL IF NOT PERMITTED

The fleet that wants to use the Suez Canal must have permission.

Turkey:

A Egypt Hold

Russia:

F Mediterranean Sea - Red Sea

The move of the Russian fleet fails, because it has no permission.

7.C.2. TEST CASE, FLEET CAN TAKE SUEZ CANAL IF PERMITTED

The fleet that wants to use the Suez Canal must have permission.

Turkey:

A Egypt Hold

SC F Mediterranean Sea - Red Sea

Russia:

F Mediterranean Sea - Red Sea

The move of the Russian fleet succeeds.

7.C.3. TEST CASE, IMPLICIT PERMISSION FOR OWN UNIT

It is not necessary to give permission to own unit.

Turkey:

A Egypt Hold

F Mediterranean Sea - Red Sea

The move of the Turkish fleet succeeds.

7.C.4. TEST CASE, EXPLICIT PERMISSION DENIES IMPLICIT PERMISSION

Only one unit gets permission. That means that when a unit is given permission, own units do not get permission.

Russia:

F Egypt Supports F Mediterranean Sea - Red Sea

F Mediterranean Sea - Red Sea

SC F Red Sea - Mediterranean Sea

Britain:

F Mecca Supports F Aden - Red Sea

F Aden - Red Sea

Turkey:

F Red Sea - Mediterranean Sea

Since Russia gives explicit permission to the Turkish fleet, the permission to its own fleet in the Mediterranean Sea is denied. That means that the move Mediterranean Sea to the Red Sea fails and that there is no beleaguered garrison in the Red Sea. The British fleet in Aden will dislodge the Turkish fleet in the Red Sea.

7.C.5. TEST CASE, ONLY ONE IMPLICIT PERMISSION

When both own units try to move through the canal, none of them gets permission.

Russia:

F Egypt Supports F Mediterranean Sea - Red Sea

F Mediterranean Sea - Red Sea

F Red Sea - Mediterranean Sea

Britain:

F Mecca Supports F Aden - Red Sea

F Aden - Red Sea

Both the move from Mediterranean Sea to Red Sea as the move from Red Sea to Mediterranean fail, because they don't get permission (only one unit can get permission). That means that the fleet in the Red Sea is not part of a beleaguered garrison and will be dislodged by the British fleet in Aden.

7.C.6. TEST CASE, NO HEAD TO HEAD BATTLE THROUGH CANAL

Since only one unit can get permission a head to head battle through the canal is not possible.

Turkey:

F Egypt Supports F Mediterranean Sea - Red Sea

F Mediterranean Sea - Red Sea

Britain:

F Red Sea - Mediterranean Sea

F Syria Supports F Red Sea - Mediterranean Sea

The British fleet in the Red Sea does not have permission and that move fails. So, there is no head to head battle. The attack from the Turkish fleet in the Mediterranean Sea on the Red Sea is just two to one and will dislodge the English fleet in the Red Sea.

7.C.7. TEST CASE, CIRCULAR MOVEMENT THROUGH THE CANAL

Circular movement with a move through the canal is possible.

Turkey:

F Egypt Hold

F Mediterranean Sea - Red Sea

F Red Sea - Mecca

A Mecca - Syria

F Syria - Mediterranean Sea

All units except the unit in Egypt will advance.

7.C.8. TEST CASE, SUEZ CANAL MOVE OUT PARADOX

If the Egyptian fleet just follows the fleet using the Suez Canal, you have a paradox.

Turkey:

F Mediterranean Sea - Red Sea

F Egypt - Mediterranean Sea

If the fleet in the Mediterranean Sea moves, the fleet in Egypt can also move, which makes the move of the Mediterranean Sea impossible. In case of a paradox the Suez Canal move fails. So, both units hold. Note that in this case it is insufficient to use a paradox rule that says that only the support is not cut (comparable to the 1971 rule with possible disrupted convoys, see issue [4.A.2](#)).

7.C.9. TEST CASE, SCHWARZ'S FIRST SUEZ CANAL PARADOX

A more complex move out paradox.

Britain:

A Egypt - Mecca

A Syria Supports A Egypt - Mecca

F Mediterranean Sea - Red Sea

Turkey:

A Arabia - Mecca

F Red Sea Supports A Arabia - Mecca

If the support in the Red Sea is cut, the army in Egypt can move out. But when it moves out, the support in the Red Sea can not be cut. When the paradox rule is used, the fleet in Mediterranean Sea fails to move and does not have any effect on the Red Sea. That means that there is still a bounce in Mecca and the army in Egypt and Arabia will fail to move.

7.C.10. TEST CASE, SCHWARZ'S SECOND SUEZ CANAL PARADOX

In this paradox, the army in Egypt does not move out, but can be dislodged.

Russia:

F Mediterranean Sea - Red Sea

F Egypt Hold

Britain:

F Red Sea Supports A Sudan - Egypt

A Sudan - Egypt

Turkey:

A Syria - Egypt

A Mecca Supports A Syria - Egypt

When the support of the Red Sea is cut, the fleet in Egypt will be dislodged. But, when the fleet in Egypt is dislodged, the support can not be cut. According to the paradox rule, the fleet in the Mediterranean Sea will not advance and not cut support. This means that the fleet in Egypt is not dislodged.

7.C.11. TEST CASE, SCHWARZ'S THIRD SUEZ CANAL PARADOX

This case is similar to the previous case, but now the fleet in the Red Sea is completely dislodged if the fleet in the Mediterranean is allowed through the canal.

Russia:

F Mediterranean Sea - Red Sea

F Egypt Hold

F Eritrea Supports F Mediterranean Sea - Red Sea

Britain:

F Red Sea Supports A Sudan - Egypt

A Sudan - Egypt

Turkey:

A Syria - Egypt

A Mecca Supports A Syria - Egypt

This should be handled similar to the previous test case. The fleet in the Mediterranean Sea will fail to move and not cut support. That means that the fleet in the Red Sea will not be dislodged and can give support. The fleet in Egypt will not be dislodged. Note that in this case it is insufficient to use a paradox rule that says that only the support is not cut (comparable to the 1971 rule with possible disrupted convoys, see issue [4.A.2](#)). If only the support would not be cut, then the fleet in the Red Sea is dislodged, but still gives valid support. This violates the dislodge rule.

7.C.12. TEST CASE, SCHWARZ'S PARADOX ADAPTED TO TWO RESOLUTIONS

The Schwarz paradoxes have all in common that there are no consistent resolutions. This adapted version has two consistent resolutions.

Russia:

F Mediterranean Sea - Red Sea

F Egypt Hold

Britain:
F Red Sea Supports A Sudan - Egypt
A Sudan - Egypt

One consistent resolution is that the fleet in the Mediterranean Sea cuts the support of the Red Sea. In this way the fleet in Egypt is not dislodged. The other resolution is that the fleet in the Mediterranean Sea does not cut support of the Red Sea, which means that the fleet in Egypt is dislodged by the army in Sudan. Since it is dislodged, the fleet in the Mediterranean indeed fails to cut the support in the Red Sea.

When the paradox rule is used, then the fleet in the Mediterranean Sea fails to move and does not cut the support in the Red Sea. That means that the fleet in Egypt is dislodged by the army in Sudan.

7.C.13. TEST CASE, SUEZ CANAL DISRUPTED CONVOY PARADOX WITH TWO RESOLUTIONS

The Suez canal paradoxes can be combined with convoys that are possibly disrupted.

Turkey:
A Egypt Hold
F Mecca Supports F Mediterranean Sea - Red Sea
F Mediterranean Sea - Red Sea

Britain:
F Red Sea Convoys A Aden - Egypt
A Sudan Supports A Aden - Egypt
A Aden - Egypt

There are two resolutions that are consistent with the rules. The Egyptian army is dislodged or the fleet in the Red Sea is dislodged.

If the 1982 rule is used (see issue [4.A.2](#)) for resolving disrupted convoy paradoxes, then there is nothing for this rule to apply. In that case only the paradox rule for the Suez Canal has to be applied. That means that the fleet in the Mediterranean Sea will fail to move. The army in Aden convoys to Egypt, dislodging the army in Egypt.

When the Szykman rule is used (*which I prefer*) or the 'All Hold' rule, then the convoy from Aden to Egypt is part of the paradoxical situation. Therefore, this convoy fails. So, both the fleet in the Mediterranean Sea as well as the army in Aden do not move.

7.C.14. TEST CASE, SUEZ CANAL DISRUPTED CONVOY PARADOX WITH NO RESOLUTION

Comparable with the previous test case, but now there is no resolution that is consistent with the rules.

Turkey:
A Egypt - Sudan
F Mecca Supports F Mediterranean Sea - Red Sea
F Mediterranean Sea - Red Sea

Britain:
F Red Sea Convoys A Aden - Sudan
A Aden - Sudan

If the British fleet in the Red Sea is dislodged by the Turkish fleet in the Mediterranean Sea, then the Turkish army in Egypt will not bounce on the convoying army in Aden. But in that case, the fleet in the Mediterranean Sea may not move. But if it not moves, the army in Egypt will bounce on the army in Aden.

If the 1982 rule is used (see issue [4.A.2](#)) for resolving disrupted convoy paradoxes, then there is nothing for this rule to apply. In that case only the paradox rule for the Suez Canal has to be applied. That means that the fleet in the Mediterranean Sea will fail to move and not cut support. The army in Aden bounces on the army from Egypt in Sudan. So, both armies will fail to move.

If the Szykman rule is used (*which I prefer*), then the convoy will also fail to move and have no effect on Sudan. That means that the army in Egypt can move to Sudan.

If the 'All Hold' rule is used, then the army in Egypt is part of the paradox and should also hold. That means that none of the units will move.

7.D. TEST CASES, TRANS-SIBERIAN RAILROAD AND SUEZ CANAL COMBINED ISSUES

7.D.1. TEST CASES, CIRCULAR MOVEMENT WITH TSR, CONVOY AND SUEZ CANAL

A gigantic circular movement is possible.

Britain:

F Gulf of Aden Convoys A Eritrea - Vladivostok

F Red Sea - Eritrea

F West Indian Ocean Convoys A Eritrea - Vladivostok

A Eritrea - Vladivostok

China:

F Sea of Japan Convoys A Eritrea - Vladivostok

France:

F South China Sea Convoys A Eritrea - Vladivostok

F Sunda Sea Convoys A Eritrea - Vladivostok

Japan:

F East China Sea Convoys A Eritrea - Vladivostok

F Yellow Sea Convoys A Eritrea - Vladivostok

Turkey:

A Armenia - Angora

A Baku - Armenia

A Egypt Hold

F Mediterranean Sea - Red Sea

A Moscow - Baku

F Angora - Mediterranean Sea

Holland:

F Java Sea Convoys A Eritrea - Vladivostok

F Southeast Indian Ocean Convoys A Eritrea - Vladivostok

Russia:

A Irkutsk Hold

A Vladivostok - TSR - Moscow

A Perm Hold

A Omsk Hold

A Krasnoyarsk Hold

All units ordered to move, will do so.

7.D.2. TEST CASE, KRUIJSWIJK'S PARADOX

A paradox that contains the Suez Canal, the Trans-Siberian Railroad and a possible disrupted convoy, is possible.

Britain:

F Gulf of Aden Convoys A Sudan - Manchuria

F Red Sea Convoys A Sudan - Manchuria

A Sudan - Manchuria

F West Indian Ocean Convoys A Sudan - Manchuria

China:

A Manchuria Supports A Mongolia - Irkutsk

A Mongolia - Irkutsk

France:

F South China Sea Convoys A Sudan - Manchuria

F Sunda Sea Convoys A Sudan - Manchuria

Japan:

F East China Sea Convoys A Sudan - Manchuria

F Yellow Sea Convoys A Sudan - Manchuria

Turkey:

A Armenia - Baku

A Baku - Moscow

A Egypt - Syria

F Mecca Supports F Mediterranean Sea - Red Sea

F Mediterranean Sea - Red Sea

A Syria - Armenia

Holland:

F Java Sea Convoys A Sudan - Manchuria

F Southeast Indian Ocean Convoys A Sudan - Manchuria

Russia:

A Irkutsk Hold

A Vladivostok - Moscow

If the British fleet is dislodged in the Red Sea, the Convoy from Sudan to Manchuria will fail. That means that the support of Manchuria is not cut and the Russian army in Irkutsk is dislodged. This prevents that the army in Vladivostok will not go to Moscow for a bounce on the Turkish army in Baku. So, all Turkish armies will move, including the army in Egypt. But if the army in Egypt moves, the fleet in the Mediterranean Sea is not allowed to go to the Red Sea to dislodge the British fleet. etc. etc.

Well, judge this whatever you like.

8. ICE VARIANT

Some variants have 'ice' sectors. You can not move to an ice sector in fall or in winter (retreat). Nor can you give support in fall.

This is used in variant Loeb9.

8.A. TEST CASE, MOVE TO AN ICE SECTOR

Move in winter to ice sector should fail.

Loeb9 in fall:

Norway:

F Norwegian Sea - Arctic Ocean

Move fails.

8.B. TEST CASE, MOVE FROM AN ICE SECTOR

Move in winter from ice sector should fail.

Loeb9 in fall:

Norway:

F Arctic Ocean - Norwegian Sea

Move fails.

8.C. TEST CASE, SUPPORT FROM AN ICE SECTOR

Support from an ice sector should fail in fall.

Loeb9 in fall:

Norway:

F Arctic Ocean Supports F Norwegian Sea - North Atlantic Ocean

F Norwegian Sea - North Atlantic Ocean

England:

F North Atlantic Ocean Hold

English fleet in North Atlantic Ocean should not be dislodged.

8.D. TEST CASE, NO RETREAT TO AN ICE SECTOR

Retreat to an ice sector in autumn should fail.

Loeb9 in fall:

England:

F North Atlantic Ocean - Norwegian Sea

F North Sea Supports F North Atlantic Ocean - Norwegian Sea

Norway:

F Norwegian Sea Hold

Fleet of Norway is dislodged. It can not retreat to the Arctic Sea.

8.E. TEST CASE, NO CONVOY IN ICE SECTOR

A convoy in fall in an ice sector should fail.

Loeb9 in fall:

England:

A Liverpool - Siberia

F North Atlantic Ocean Convoys A Liverpool - Siberia

F Arctic Ocean Convoys A Liverpool - Siberia

Convoy fails and army stays in Liverpool.

9. CONVOYING COASTAL AREA VARIANT

Some variants have coastal sectors in which convoying is allowed (for instance in Ancient Mediterranean). This introduces some difficulty in the rules, since convoys can now be disrupted by normal army movement or convoyed armies.

To execute these test cases, the standard map should be adapted. The areas Denmark and Sweden are made convoyable coasts. Berlin and Denmark are connected for fleets. That means that fleets can move from Berlin to Denmark and vice versa, but armies can not.

9.A. TEST CASE, DISLODGING OWN CONVOY

You can argue that your own convoy can be dislodged.

Denmark changed in convoyable coastal area and Berlin and Denmark are connected for fleets:

England:

F Denmark Convoys A Berlin - Denmark

Germany:

A Kiel Supports A Berlin - Denmark

Russia:

A Berlin - Denmark

Dislodging your own convoy is not possible. The English convoy order is illegal because it convoys to itself.

9.B. TEST CASE, CONVOYING TO OWN AREA WITH A LOOP

You may argue that in the previous test case there was no legal convoyable path. Since Berlin - Denmark - Denmark contains a move from Denmark to Denmark. This can be changed by an additional convoying fleet

Denmark changed in convoyable coastal area and Berlin and Denmark are connected for fleets:

England:

F Denmark Convoys A Berlin - Denmark

Germany:

A Kiel Supports A Berlin - Denmark

Russia:
A Berlin - Denmark
F Skagerrak Convoys A Berlin - Denmark

Now there is a convoy path Berlin - Denmark - Skagerrak - Denmark. Still, dislodging your own convoy is not possible. The English convoy order is illegal because it convoys to itself.

9.C. TEST CASE, CONVOY DISRUPTED BY ARMY

Convoys can be disrupted by armies.

Sweden changed in convoyable coastal area:

Germany:
A Denmark - St Petersburg
F Sweden Convoys A Denmark - St Petersburg
F Gulf of Bothnia Convoys A Denmark - St Petersburg

Russia:
A Finland - Sweden
A Norway Supports A Finland - Sweden

The German convoy is disrupted by the Russian army in Finland. Therefore, the German move to St Petersburg fails.

9.D. TEST CASE, CONVOY DISRUPTED BY CONVOYING ARMY

Convoys can be disrupted by convoys.

Sweden changed in convoyable coastal area:

Germany:
A Denmark - Finland
F Sweden Convoys A Denmark - Finland

Russia:
F Gulf of Bothnia Convoys A St Petersburg - Sweden
F Norway Supports A St Petersburg - Sweden
A St Petersburg - Sweden

The German convoy is disrupted by the Russian convoy. Therefore, the German move to Finland fails.

9.E. TEST CASE, TWO DISRUPTED CONVOYS PARADOX

With the possible that a convoy can disrupt another convoy directly (without support cut) a new paradox is possible. Two convoys that disrupt each other directly.

Denmark and Sweden changed in convoyable coastal areas:

Germany:
A Kiel - Sweden
F Denmark Convoys A Kiel - Sweden
F Skagerrak Supports A Kiel - Sweden

Russia:

F Sweden Convoys A Finland - Denmark

A Finland - Denmark

F Baltic Sea Supports A Finland - Denmark

The German convoy disrupts the Russian convoy and the Russian convoy disrupts the German convoy.

This can not be resolved with the 1971, the 1982 or 2000 rulebook (see also issue [4.A.2](#)).

When the Szykman (*which I prefer*) rule is used, both convoys fail. The 'All Hold' rule has the same result since there are no other units that move.

9.F. TEST CASE, DISRUPTED CONVOY SUPPORT PARADOX WITH NO RESOLUTION

It is also possible that a convoy disrupts another convoys, while that convoy cuts the support targeting the convoy from which it is attacked.

Sweden changed in convoyable coastal area:

Germany:

A Denmark - Finland

F Sweden Convoys A Denmark - Finland

A Norway Supports A Denmark - Finland

Russia:

F Gulf of Bothnia Convoys A St Petersburg - Sweden

A St Petersburg - Sweden

F Baltic Sea Supports A St Petersburg - Sweden

England:

F Finland Supports F Livonia - Gulf of Bothnia

F Livonia - Gulf of Bothnia

The result depends on which paradox rule is used (see issue [4.A.2](#)). If the 1971 or 2000 rulebook is used, then there is no resolution.

If the 1982 rulebook is used, the support of Finland is not cut. That means that the fleet in the Gulf of Bothnia is dislodged by the English fleet in Livonia. Since, this disrupts the Russian convoy starting in St Petersburg, the Russian army in St Petersburg will stay and the German fleet in Sweden is not dislodged.

If the Szykman rule is used (*which I prefer*), both convoys are part of the paradoxical situation. So, the German army in Denmark and the Russian army in St Petersburg will not move. They have both no effect on the place where they supposed to move to. That means that the English support in Sweden is not cut and the Russian fleet in the Gulf of Bothnia is dislodged by the English fleet in Livonia.

If the 'All Hold' rule is used, then the tree moves fail. So, the German army in Denmark, the Russian army in St Petersburg and the English fleet in Livonia all stay. So, the Russian fleet in the Gulf of Bothnia is not dislodged.

9.G. TEST CASE, DISRUPTED CONVOY SUPPORT PARADOX WITH TWO RESOLUTIONS

The previous test case did not have a resolution that follows all normal rules. It can be changed in such way that there are two possible resolutions.

Sweden changed in convoyable coastal area:

Germany:

A Denmark - Finland

F Sweden Convoys A Denmark - Finland

A Norway Supports A Denmark - Finland

F Baltic Sea Supports F Livonia - Gulf of Bothnia

F Livonia - Gulf of Bothnia

Russia:

F Gulf of Bothnia Convoys A St Petersburg - Sweden

A St Petersburg - Sweden

F Finland Supports F Gulf of Bothnia

F Skagerrak Supports A St Petersburg - Sweden

There are two resolutions. The German army in Denmark advances to Finland, cutting the support of the Russian fleet. The Russian fleet in the Gulf of Bothnia is dislodged, such that the fleet in Sweden will not be dislodged. The other resolution is that the army in St Petersburg dislodges the fleet in Sweden. This prevents that the support of the fleet in Finland is cut, such that the fleet in the Gulf of Bothnia will not be dislodged.

The results depends on which paradox rule is used (see issue [4.A.2](#)). When the 1971 or 2000 rulebook is used, there is no resolution.

When the 1982 rulebook is used, then the support of the Russian fleet in Finland is not cut. That means that the Russian fleet in the Gulf of Bothnia is not dislodged and that the convoy from St Petersburg to Sweden is successful, dislodging the German fleet there. The German fleet in Livonia will stay.

When the Szykman rule is used (*which I prefer*), both convoys fail and the support of the Russian fleet in Finland is not cut. This means that the fleet in the Gulf of Bothnia is not dislodged. So, no unit will move.

When the 'All Hold' rule is used, then the army in Denmark, the army in St Petersburg and the fleet in Livonia will not move. So, no unit will move and no unit will be dislodged.

10. DIFFICULT PASSABLE BORDER VARIANT

In some variants armies can move between two sectors but with one support less. If no support is given, then the move can not cut support. Support can not be given over this corridor.

10.A. TEST CASE, SUPPORT CAN NOT BE CUT OVER DIFFICULT PASSABLE BORDER

If an army is passing a difficult passable border without any support, then it can not cut support.

In Loeb9:

Italy:

A Naples - Sicily

F Tyrrhenian Sea Hold

Turkey:

F Sicily Supports F Ionian Sea - Tyrrhenian Sea

F Ionian Sea - Tyrrhenian Sea

The support is not cut and the fleet in Tyrrhenian Sea is dislodged.

10.B. TEST CASE, MOVE OVER DIFFICULT PASSABLE BORDER WITH SUPPORTS CUT SUPPORTS

If the move receives support, then it can cut support.

In Loeb9:

Italy:

A Naples - Sicily

F Ionian Sea Supports A Naples - Sicily

F Tunis Supports F Rome - Tyrrhenian Sea

F Rome - Tyrrhenian Sea

Spain:

F Sicily Supports F Tyrrhenian Sea

F Tyrrhenian Sea Hold

The support of Sicily is cut and the fleet in Tyrrhenian Sea is dislodged.

10.C. TEST CASE, MOVE OVER DIFFICULT PASSABLE BORDER CAN NOT BOUNCE WITH NORMAL MOVE

A move over difficult passable border can not prevent another unit to move into the sector.

In Loeb9:

Spain:

A Cordoba - North Africa

Italy:

A Tunis - North Africa

Spanish move of army fails. The move of Italy succeeds.

10.D. TEST CASE, TWO MOVES OVER DIFFICULT PASSABLE BORDER CAN BOUNCE

When two armies over a difficult passable border enter the same sector, they bounce. Test whether the adjudicator can handle this bounce with zero power.

In Loeb9 with a changed map that has a difficult passable border between North Africa and Tunis:

Spain:

A Cordoba - North Africa

Italy:

A Tunis - North Africa

Both armies bounce.

10.E. TEST CASE, SUPPORT CAN NOT BE GIVEN OVER DIFFICULT PASSABLE BORDER

If the border is difficult to pass, it is impossible to give support over this border.

In Loeb9:

Italy:

A Naples Supports F Tyrrhenian Sea - Sicily

F Tyrrhenian Sea - Sicily

Turkey:

F Sicily Hold

The army in Sicily should not be dislodged.

10.F. TEST CASE, SUPPORT PARADOX

There is no known real paradox with the difficult passable borders. However, in this test case the question is which of the supports is cut.

In Loeb9 with edited map that has a difficult passable border between Sicily and Tunis:

Italy:

A Sicily - Tunis

A North Africa Supports A Sicily - Tunis

Spain:

A Cordoba - North Africa

A Tunis Supports A Cordoba - North Africa

Program should not come in an infinite loop. All armies should hold. Preferable, the adjudicator reports a symmetric cut of supports. That means both supports are cut or both supports are not cut.

10.G. TEST CASE, ALMOST PARADOX

The previous test case extended with an additional fleet that prevents the paradox.

In Loeb9 with edited map that has a difficult passable border between Sicily and Tunis:

Italy:

A Sicily - Tunis

A North Africa Supports A Sicily - Tunis

Spain:

A Cordoba - North Africa

A Tunis Supports A Cordoba - North Africa

F Western Mediterranean Supports A Cordoba - North Africa

Army in Cordoba should advance.

Now test the same with an Italian fleet to see if there is no arbitrary decision in the adjudicator:

In Loeb9 with edited map that has a difficult passable border between Sicily and Tunis:

Italy:

A Sicily - Tunis

A North Africa Supports A Sicily - Tunis

F Western Mediterranean Supports A Sicily - Tunis

Spain:

A Cordoba - North Africa

A Tunis Supports A Cordoba - North Africa

Now the army in Sicily should advance.

10.H. TEST CASE, CIRCULAR MOVEMENT WITH DIFFICULT PASSABLE BORDER

Adjudicator may choke on a circular movement when one of the borders is difficult passable.

In Loeb9:

Italy:

F Sicily - Tyrrhenian Sea

F Tyrrhenian Sea - Naples

A Naples - Sicily

All units move.

10.I. TEST CASE, CIRCULAR MOVEMENT WITH BOUNCE

Adjudicator may choke on a circular movement when one of the borders is difficult passable and the unit using this border is bounced.

In Loeb9:

Italy:

F Sicily - Tyrrhenian Sea

F Tyrrhenian Sea - Naples

A Naples - Sicily

Turkey:

F Ionian Sea - Sicily

No unit moves.

10.J. TEST CASE, CIRCULAR MOVEMENT CAN NOT BE DISRUPTED BY ARMY USING DIFFICULT PASSABLE BORDER

When a circular movement is attacked by an army over a difficult passable order, the circular movement will just go on.

In Loeb9:

Italy:

A North Africa - Tunis

F Western Mediterranean - North Africa

F Tunis - Western Mediterranean

Spain:
A Cordoba - North Africa

The Spanish army in Cordoba will not move and not disrupt the moves of Italy. The Italian moves all succeed.

10.K. TEST CASE, DIFFICULT PASSABLE BORDER DURING RETREAT

A difficult passable border is also difficult passable during retreat. That means that when two armies retreat to the same sector and one of the armies is using a difficult passable border, the army using the normal border has a successful retreat.

In Loeb9:

Italy:
F Tyrrhenian Sea Hold
A Naples Hold

Turkey:
A Apulia - Naples
F Ionian Sea Supports A Apulia - Naples

Spain:
F Western Mediterranean Supports F Gulf of Lyon - Tyrrhenian Sea
F Gulf of Lyon - Tyrrhenian Sea

Both Italian units are dislodged. If they both retreat to Sicily, then the fleet in the Tyrrhenian Sea should advance and the army in Naples is disbanded.

10.L. TEST CASE, DIFFICULT PASSABLE BORDER IS PROPERTY OF BORDER NOT OF SECTOR

Adjudicators may mark the two adjacent sectors difficult passable, but this is an incorrect situation.

In Loeb9 with edited map that has a difficult passable border between Sicily and Tunis:

Italy:
F Western Mediterranean Supports A Tunis - North Africa
A Tunis - North Africa

Spain:
A North Africa Hold

Army in Tunis should advance.

10.M. TEST CASE, USING CONVOY INSTEAD OF DIFFICULT PASSABLE BORDER

A difficult passable border can be by-passed by a convoy.

In Loeb9:

Italy:
A Naples - Sicily via Convoy

F Tyrrhenian Sea Convoys A Naples - Sicily
F Ionian Sea Supports A Naples - Sicily

Turkey:
A Sicily Hold

Since the move from Naples to Sicily is via convoy, the Turkish army in Sicily is dislodged.

10.N. TEST CASE, USING CONVOY INSTEAD OF DIFFICULT PASSABLE BORDER CUTS SUPPORT

If a difficult passable border is by-passed by a convoy, then it cuts support.

In Loeb9:

Italy:
A Naples - Sicily
F Tyrrhenian Sea Convoys A Naples - Sicily
F Ionian Sea Hold

Turkey:
F Sicily Supports F Aegean Sea - Ionian Sea
F Aegean Sea - Ionian Sea

Since the army in Naples is using a convoy, the support of the fleet in Sicily is cut. That means that the Italian fleet in the Ionian Sea is not dislodged.

10.O. TEST CASE, SUPPORT ON ATTACK ON OWN ARMY OVER DIFFICULT PASSABLE BORDER DOES NOT CUT SUPPORT

A movement over a difficult passable border does not cut support. But what if the movement was supported by an army of the same power of the army that is attacked? I think it should still not cut support.

In Loeb9:

Italy:
A Naples - Sicily
F Ionian Sea Hold

Spain:
F Tyrrhenian Sea Supports A Naples - Sicily
F Sicily Supports F Ionian Sea

Turkey:
F Greece Supports F Aegean Sea - Ionian Sea
F Aegean Sea - Ionian Sea

The support of Sicilia is not cut, that means that the fleet in the Ionian Sea is not dislodged.

11. BUILD IN ANY SUPPLY CENTER VARIANT

Some variants allow building of units in any supply center that is owned. The Chaos variant uses this rule.

11.A. TEST CASE, CIVIL DISORDER

Since there is no notion of 'home supply center', the 'civil disorder' rules changes. It is expected that any owned supply center is treated as home supply center.

Chaos:

Berlin owns Naples as only supply center.

Berlin power has a unit in Prussia and Apulia.

In Civil disorder the unit in Prussia should be removed.

12. 1898 VARIANT

In the 1898 variant all powers start with one unit. The home supply centers have to be captured first, before it is allowed to build there. The problem with this variant is that the home supply centers, the starting units and the starting owning supply centers are not the same anymore. It should be possible to distinguish those in the data files that describe the variant.

12.A. TEST CASE, HOME SUPPLY CENTER HAS TO BE CAPTURED FIRST

The home supply centers should not be marked owned when the game is started.

1898:

Germany did not yet captured Munich, but may build one.

Germany:
Build A Munich

Build fails.

12.B. TEST CASE, BUILD IN NON-STARTING POSITION ALLOWED

Builds are restricted to the home supply centers and not to the starting positions of the units.

1898:

Germany owns Munich, Munich is empty and Germany may build one.

Germany:
Build A Munich

Build succeeds.

12.C. TEST CASE, COUNTRIES CAN STILL ONLY BUILD IN HOME SUPPLY CENTERS

The notion of home supply center still exists. That means that builds in other supply centers are not allowed.

1898:

Germany owns Warsaw, Warsaw is empty and Germany may build one.

Germany:

Build A Warsaw

Build fails.

12.D. TEST CASE, CIVIL DISORDER STILL BASED ON HOME SUPPLY CENTERS

When a unit has to be removed according to the civil disorder rules, then the distance should still be calculated from the home supply centers and not to the owned or starting supply centers.

1898:

Russia owns St Petersburg and has a fleet in the Black Sea and the Norwegian Sea.

Russia has to remove one unit but does not order anything.

The fleet in the Norwegian Sea is removed.