

ALONE IN OUTER SPACE

Solitaire Variant for STELLAR CONQUEST

By Charles E. Duke

In the galaxy far, far in the future, let it not be forgotten that a vast number of computer strategy games trace their ancestry to STELLAR CONQUEST. Many of the early computerized galactic conquest games mimicked it. Unusual for board wargaming, STELLAR CONQUEST produced the aura of fighting an unseen enemy under conditions of extremely limited and constantly outdated intelligence in which technology drives war success and population growth requires expansion. In short, it is a tense game of cat and mouse among human opponents (face-to-face or by mail), but a wistful flop for those who largely play their games solitaire. Rather than forking over vast sums of money for a computer (and frequent upgrades), Mr. Duke offers a boardgame solution.—SKT

One of STELLAR CONQUEST's most fascinating features is its "fog of war" (or should I say "nebula of war"?). It is challenging to be completely in the dark about your opponent's forces, defenses, population and intentions. Gathering intelligence is mandatory, costly, and part of the fun.

All this is small consolation, however, for the not uncommon gamer who must rely primarily on solitaire play due to lack of live opponents. He's dying to play STELLAR CONQUEST (STC), but the solitaire player will usually find that he has built all four empires in a very similar manner. Conflicts are dull. Will the Red Empire invade the Yellow Confederation next turn, where, and why? Red has death stars, Yellow doesn't. You feel guilty if you don't strengthen Yellow for the upcoming assault, and you also feel guilty if you arm Yellow and deprive Red from a probably deserved surprise attack. Furthermore, intelligence gathering seems pointless in a solo game unless you follow the mind-boggling policy of making an empire act only upon what it is supposed to know. Now let me see, did Green discover three turns ago that Red already has fighters?

This article presents a system that controls most of the political and economic decision-making in STC. You still move ships around, decide on strategy and tactics during conflicts, transfer colonists, etc. As you take each empire's turn, you should use it as fairly as possible (just as you do when you try to use both sides efficiently while playing ASL or THE RUSSIAN FRONT

solitaire). Now, however, you may be restrained by that power's current policy. For example, you can't use its forces to attack a neutral neighbor unless the politicians declare war.

GENERAL RULE VARIATIONS

The following general rules variations can be used in both solitaire and multi-player games.

Planet Shields. Developing and building planetary shields is a primary strategy in the normal game, but in a solitaire game the appearance of invulnerable planets may lead to boredom (a problem that plagues multi-player games as well).

In this variant, planet shields may be attacked as if they were fighters. As long as the shield is up, bases and population on the surface may not be attacked, but bases may fire against the attacking ships. If the attackers get five or more hits in the same round of combat, the shield overloads catastrophically and is destroyed. Surface forces may then be attacked in subsequent rounds. If the attackers score three or four hits in the same round, the shield receives a damage point. An accumulation of four damage points will destroy the shield. One or two hits in a round has no effect. However, if no hits are scored in a given round of combat, the shield's generators may be used by the defenders as a tractor beam in an attempt to disrupt (and destroy) one attacking ship, using the death star column of the Attack Table. If no hits are achieved against the shield in two consecutive rounds of combat, the attacker must call off his assault and the battle ends. At the end of each battle, damaged shields are fully repaired. Destroyed shields remain destroyed and must be rebuilt.



Scouts. In a solitaire game, unarmed scouts quickly become worthless. I find the changes below make starfleets more varied, interesting, and balanced, even for multi-player games.

In this variant, scouts are small warships which may fight. They hit colony transports on a die roll of 1-2, other scouts with a die roll of 1, and corvettes or missile bases on a two-dice roll of 10. The hit probability against scouts is also modified: missile bases and corvettes hit them with 1-3, fighters and advanced missile bases with 1-4 and death stars with 1-5.

Population Growth. Allow Minimal Terran planets to increase population at the rate of one for every 15 million. Fractions of population smaller than the number required for growth may still grow by one if you roll less than or equal to the fraction. Roll one die for Terran planets, two dice for Sub-Terran and three dice for Minimal Terran. For example, a Subterranean planet holds 27 million souls. Normally, it will produce two million new colonists for its 20 million base, while the seven million leftover is sterile. Now, if you roll seven or less with two dice, a third million will be produced.

SOLITAIRE VARIANT DEFINITIONS

Power. Each of the four sides in the game.

YELLOW	
Orbit 4	Minimal Terran 20 Million
Orbit 5	Terran 60 Million

Claims. Every time that a power explores a star for the first time it "claims" it as its territory. Note this by giving the star's card to the power (as a sort of deed of ownership). A star remains claimed by a power until a negotiation or treaty mandates that it must be transferred to another power. Star cards are kept by a power even if an enemy militarily conquers the star during a conflict. Conquered colonies are considered to be friendly territory currently under enemy occupation. A planet may be colonized only by the power which holds the corresponding star card (either through exploration or via peace treaty). Otherwise, normal conquest rules apply.

Border Star. A friendly star is a border star relative to an enemy if it is closer (or as close) to an enemy star as any other star that is as close to the friendly star. Stars closer to the enemy, but which are on the far side of the enemy, are consequently not close enough to the friendly star. For example, Hydrae borders Aurigae, Sadir and Alcor, but not Lupi. Lupi borders Aurigae, Scheat, Lacaille and Sadir, but not Draconis. Draconis borders Canopus, Almach, Scheat and Lacaille. Scheat and Lacaille are both closer to Lupi than Draconis, preventing Lupi from bordering Draconis.

BEGINNING THE GAME

Set up the game in the normal manner. Each power determines its initial spending independently. All powers will automatically spend 15 points to buy three-hex speed. The remaining ten points are invested in research determined by the Research Priority Table, using the peace column. Roll two dice to determine the chosen class and then roll two dice to determine the chosen research level. If more than one research title remains at that level, then determine which is chosen according to an odd/even die roll.

Research Priority Table**Research Class**

(sum of two dice)

	<i>Peace:</i>	<i>War:</i>
2-5	Speed*	Technology
6-7	Weapons	Speed*
8-12	Technology	Weapons

*If maximum speed (8) has been achieved, give priority to technology class during peace, to weapons class during war.

Research Level

(sum of two dice, +1 if at war)

2-5	Lowest unfinished level
6-8	Highest possible level
9+	Highest level related to owned predecessor (otherwise highest possible level)

The particular research title of the appropriate level is determined by odd/even die roll if necessary.

PRODUCTION ROUTINES

In every production turn, after diplomatic events have been determined, each colony calculates industrial output, builds colony transports and spends on equipment and research independently, but according to the overall economic priority determined for its power. Start with the most recent colony and proceed to the oldest colony of the power.

Colonization Policy. Under certain conditions, each unbesieged colony's first priority is to emigrate colonists, buying the necessary transports to send them to another planet claimed by the power.

The planet nearest to a below-capacity mineral rich planet will emigrate enough population to fill the mineral rich planet to capacity.

All non-mineral-rich planets colonized above 80 per cent of capacity will emigrate enough population to fully utilize the population bonus.

During peace, all Terran, non-mineral-rich planets colonized to 50 per cent of capacity will emigrate enough population to fully utilize the population bonus (but never reducing population below 20 million).

After a war victory, all Sub-Terran, non-mineral-rich planets will emigrate half of their population plus the population bonus to Terran planets newly evacuated by the losing power.

Economic Priorities. Roll a die once for each power (not each colony) to see how the higher authorities have decided to invest the remainder of their industrial points at their colonies. Consult the Economic Priority Table. The result indicates the area to receive priority at each colony. The priority area utilizes at least 50 per cent of the colony's remaining industrial output. After conducting that spending, the next remainder is divided as evenly as possible between secondary and tertiary expenditures (with the secondary focus getting the benefit of any uneven split caused by item prices).

Economic Priority Table

(roll one die, +1 if in truce or incident, +2 if at war)

	<i>Priority</i>	<i>Secondary</i>	<i>Tertiary</i>
1	Factories*	Research	Weapons
2-4	Research	Weapons	Factories*
5+	Weapons	Research	Factories*

Note: Weapons are ships (including scouts) and bases. If all research items have been acquired, research spending goes towards weapons.

*If industrial tech is still not available, output goes into research.

In the case of weapons, buy as many of the most costly ship or base as possible with the funds. Then, allocate the remaining weapons spending toward cheaper ships and/or bases to fully spend the minimum.

In the case of research, all spending goes toward finishing a partially-completed research item before a new one is started. New research is determined by the Research Priority Table (see above).

For example, Red has a Terran planet on Alcor which has a population of 50 million (planet has a capacity of 80) with 5 factories. Red is at peace. The Alcor planet grows to 60 million and must emigrate 12 million to gain the full population bonus of four million (costing 16 of the planets 65 i.p.'s for the transports). Red rolled a 5 for an economic priority of weapons, so at least 25 i.p.'s must be spent on weapons. Red buys one mandated fighter, plus one missile base and one scout (27 i.p.'s). The remaining 22 i.p.'s are divided between research and factories, resulting in the building of two factories and the expenditure of 14 i.p.'s on Red's current research priority.

TRANSPORT POLICY

During movement, colonists are moved in transports to a habitable planet claimed by the power which fulfills the earliest condition set forth below and is within command range and within four turns of movement. If a destination doesn't have the capacity to accommodate all of the colonists, divide the transports among separate task forces with different destinations as necessary.

1. Mineral rich planet, colonized
2. Mineral rich planet, uncolonized
3. T planet, uncolonized
4. T planet, colonized < 50%
5. T planet, colonized < 75%
6. ST planet, colonized < 75%
7. ST planet, uncolonized
8. MT planet

DIPLOMATIC ROUTINES

The general diplomatic situation among the powers is affected by the particular stage of the game.

Neutrality and Incidents. Unless a power is involved in limited or total war, it is considered neutral. All powers enter the game neutral and remain so until diplomatic events in stage III or later alter that circumstance. Misunderstandings, political blunders, clashes and border disputes are incidents and are not considered to be a war for any purpose, although they may lead to one.

Stage I: Expansion. In this stage, powers are settling into the sector. At first, each doesn't know that other powers exist, and even when an encounter occurs it tends to be peaceful. There is no need or desire for conflict. This stage lasts until the last star on the mapboard has been claimed by a power.

Ships may not be sent voluntarily towards a star that has already been claimed by another power. If ships are already on the way when the star becomes claimed by another power, the ships must continue to their destination. Then, after surviving exploration risks, if no enemy ships are present, place the latecoming ships in an adjacent hex with a new destination. If enemies are present, roll two dice and consult the Encounters Table.

Encounter Table

(sum the roll of two dice)

- 2-10: Peaceful Encounter. After an exchange of greetings and knowledge, place the arriving ships in an adjacent hex with a new destination.
- 11-12: Misunderstanding. Shots are exchanged! Fight one round of combat, then place surviving arriving ships in an adjacent hex with a new destination.

Stage II: Growth. The powers have defined their turf, and although disputes may arise, generally speaking they are satisfied with developing what they already possess. There is little need for looking over the neighbor's fence. More or less peaceful relations exist. This stage lasts until the combined population of all powers first reaches or exceeds 600 million.

On every production turn, calculate population growth for every colony of every power, and sum the total to determine the stage of the game. Then, roll two dice and consult the Diplomatic Events Table and

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any successive table so indicated. This may alter the diplomatic stance of one or more powers. Then, continue with the production routine at each colony and the normal sequence of play.

Stage III: Tension. The colonization of planets is almost complete. Powers begin to look elsewhere for room to expand. Clashes and conflicts become common. This stage lasts until the combined population of all powers first reaches or exceeds 1200 million.

As in Stage II, roll dice and consult on the Diplomatic Events Table, but apply a "+2" during stage III.

Stage IV: Empire. There is little space to grow within each power's borders. Conquest is a must. Dreams of "Empire" infect every power's leaders. This stage lasts until the end of the game.

As in Stage II, roll dice and consult on the Diplomatic Events Table, but apply a "+4" during stage IV.

Diplomatic Events Table

(sum of two dice, +2 in Stage III, +4 in Stage IV)

2-8	Peace talks
9	Political Blunder
10-11	Border Dispute
12-13	Limited War
14+	Total War

Peace Talks. If any war currently exists, roll two dice and consult the Peace Talks Table. If no war currently exists, peace continues.

Peace Talks Table

(sum of two dice, +1 per neutral power and +2 if war is limited)

2-5	Failure—War Continues
6	Truce
7+	Peace Treaty

Truce. Hostilities cease. Powers may not attack each other or move forces into star systems that the enemy currently controls or besieges. Star claims are not exchanged. In the next production turn, do not roll for diplomatic events. Instead, peace talks resume. Roll again on Peace Talks Table.

Peace Treaty. Determine which side is the winner by counting success points (see War Success Table). Subtract the loser's points from the winner's to yield the success point differential. Then, look up the peace terms on the Peace Terms Chart.

War Success Table

	Success Pts.
<i>Conquest of*:</i>	
T planet	12
ST planet	8
MT planet w/minerals	6
MT planet	3
Barren, minerals	4
Barren	2
Star with no planets	1
<i>Destruction of:</i>	
Planet Shield, Death Star	4
Advanced Missile Base, Fighter	2
Missile Base, Corvette	1
Scout	1/2

*You receive success points for conquest of planets if the star system was totally conquered.

Peace Terms Chart

(success point differential in parentheses)

Stalemate (0-10): Both sides must evacuate any enemy stars they occupy as soon as possible.

Marginal Victory (11-25): One star among those conquered by the winner is annexed. The ceded star must be the one that is closest to a friendly star (choose randomly if equidistant), regardless of military conquests during the war. If two or more powers are on the victorious side, give the star to the one that you feel contributed most to victory. If no star was conquered, the loser must give away a star anyway. The victor's ships and population must depart any other stars of the defeated power. The loser must do likewise vis-a-vis the stars of the victorious power.

Substantial Victory (26-50): As in marginal victory, except that two stars are annexed. If the victorious side has two powers, each receives one system.

Decisive Victory (51+): Same as above, except that half (fractions rounded up, with a minimum of three) of conquered stars are annexed. In addition, the loser does not evacuate his colonists—they remain as slaves. Planet defenses are destroyed, but factories are confiscated by the winner. If two or more powers were victorious, each gets a roughly equal share of the annexed stars.

Annexation of Stars. Transfer the star card, establishing a new claimant to the planets. Colonists in the annexed system remain in control of the loser, but are evacuated. Transports must be built and all population must leave. No emigration bonus occurs. The industrial output of the annexed planets cannot be spent on any other purpose in this production turn. Planet defenses and factories are destroyed before departure.

Political Blunder. A squabble over some minor issue (the extradition of a criminal, mistreatment of citizens of one power by authorities of the other, excessive import taxes, etc.), cause an incident between two randomly determined powers.

- If the powers are currently enemies in a war, there is no further effect—the war continues.
- If the powers are currently allies in a war, one of them (randomly determined) feels insulted by the other and makes a separate peace, becoming neutral (implement the effects of Stalemate on the Peace Terms Chart).

- If one of the powers is at war and the other is neutral, the latter joins the war against the former.
- If both are neutral, the incident forces a clash.

Clash. Each involved power may conduct one raid per turn against any star system of the enemy. Take forces from any one friendly star (a maximum of five ships, including no death stars) and move them towards the target star system. It reaches the destination during the same turn, or the raid cannot be conducted. One or two rounds of combat may be fought (but a planet should not be bombarded or conquered). Then, the raiders are placed in an adjacent hex with their original base as their destination. Keep a tally of the sum of the number of raids conducted by both sides and the number of ships and missile bases destroyed. This is the Tension Number. On the next production turn, just before rolling on the Diplomatic Event Table, roll two dice. If the result is two less than the Tension Number, limited war ensues. If the roll is equal to or one less than the Tension Number, the incident continues. If the result is greater, the incident ends.

During a clash, raids should be conducted whenever the power is able. However, you are free not to conduct a raid if it would be suicidal. You should use each side to its best interest. For instance, a weak power may perceive that it is to its advantage to keep the Tension Number low—even to the point of not firing back at enemy raiders—to avoid the risk of an escalation to war. Only light reinforcements should be sent to the area.

Border Dispute. A randomly determined power claims that a border star of another power (also randomly determined) is its God-given, manifest destiny, historical and universal real estate.

- If the powers are currently enemies in a war, the war continues.
- If the powers are currently allies in a war, the owner of the disputed star feels disappointed with his ally and switches sides, becoming an ally of the former enemy. The former enemies (now allied) must depart any of each other's stars that they may have conquered.
- If one power is at war and the other is neutral, the latter joins the war against the former.
- If both are neutral, a border dispute erupts. Choose at random one border star that the first power is claiming (if there are no border stars due to a lack of common borders, treat this event as a Political Blunder and conduct a clash). The claiming power may attack the disputed star system in an attempt to conquer it, but other enemy stars may not be invaded.

The defender may counterattack in the disputed star, but may not attack other enemy stars. In other words, conflict will be limited to the star system that is the cause of contention. In the next production turn, before diplomatic events, roll two dice, adding two to the result if the star is under the claimant's control (i.e., conquered) and consult the Dispute Resolution Table.

During a border dispute, control of the star system should be fought for vigorously. Moderate reinforcements may be sent to the area.

Dispute Resolution Table

(sum of two dice, +2 if star conquered by attacker)

2-8	Arbitration
9-10	Incident Continues
11+	Limited War Ensues

Arbitration. If the attacker conquered the star, he annexes it. Otherwise the original claimant keeps the star system, while the forces of the attacker must leave during their next movement phase and do not fire upon other ships until then. The incident ends.

Limited War. Determine randomly two powers to be affected.

- If both are already involved in any war (as allies or enemies), there is no effect.
- If one is at war and the other is neutral, the latter joins the war against the former.
- If the two are neutral and a war is already occurring between the other two powers, each neutral will join one of the sides in that war.
- If all powers are neutral, limited war erupts between the two. During limited war, both sides may invade border stars of the enemy, but may not escalate by invading other stars. If the power has an ally, it may attack enemy stars on its ally's border, even if they would not be considered border stars in relation to itself. Allied forces may stack together.

Keep track of losses of bases, shields and ships during a war, as this will be used to determine the peace terms in the event of the signing of a peace treaty.

Total War. Determine randomly two powers to be affected.

- If both are already in a total war (as allies or enemies) no effect.
- If both are already in a limited war (either as allies or as enemies), it becomes total.

- If one power is already at war and the other is neutral, the latter joins the war against the former, and limited war becomes total war.
- If a war already exists between the other two powers, each neutral will join one of the sides in that war, and limited war becomes total war.
- If all powers are neutral, total war erupts between the two determined powers.

During total war there are no limitations. Any enemy star may be invaded. Fight as you see fit.

Keep track of losses of bases, shields and ships during a war, as this will be used to determine the peace terms in the event of the signing of a peace treaty.

Total conquest. If a power is completely annihilated militarily (no free population left during a production turn), the war ends (in relation to the losing power). The victor immediately annexes all the conquered stars (exchange star cards). Any surviving ships of the vanquished are replaced by similar ships of the winner's color. If there are two or three winners, they share the spoils. You may distribute them evenly, or in proportion to each power's contribution to victory, as you see fit. ★

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rescue. Our intelligence personnel have gathered data on the enemy which is summarized in Table 3. We have substantial probability of facing two or three traps (S Guard cards) between each of our regroups. Every time the enemy reinforces a skirmish, our situation gets tougher. We need to try to keep the odds in our favor by looking for ways to negate the arrival of the many Guard reinforcements (either via location analysis or use of the special abilities of on-site Marines).

TABLE 3

Proportions of Guard Characteristics						
No. of Players	S Guard	Rein	Hide	Casualty	Kill	Hold
6	17.1%	37.1%	28.6%	20.0%	25.7%	14.3%
5	19.4	38.7	29.0	19.4	25.8	12.9
4	23.1	42.3	34.6	11.5	23.1	11.5
3	30.0	50.0	45.0	5.0	20.0	5.0
2	27.3	45.5	45.5	9.1	18.2	9.1
1	28.6	47.6	42.9	9.5	19.0	9.5

The table shows that the strongest and weakest characteristics of the Guard vary according to the number of Marines we send

to the surface. For instance, in a large-sized rescue attempt, Casualty and Hold characteristics are at a maximum, while the S Guard, Reinforcement and Hide characteristics are minimized. A smaller rescue attempt would involve S Guard and Reinforcement characteristics at their maximum, with Casualty and Hold characteristics minimized.

As you win skirmishes, the *Schenectady* will relay mission support information (Dispatches) to the field leader to assist with your next goal. All Dispatches are usable to call in fire support. We expect that 90 per cent of them will also have additional possible benefits, depending upon the situation and a particular Marine's ability to use the information. As we expect you to be involved in between ten and 18 skirmishes, the actual application of the Dispatches will depend on skirmish circumstances.

One more item before we embark—look over the overall map. It shows the direct route and flanking routes. As you will note from studying the map, some locations are favorable while others are to be avoided, especially if our resources are waning. However, realize that there is always a chance we'll hit unexpected terrain. Our

experts have identified 32 additional sites we may be forced to encounter, depending on luck, the resistance we face, and so on. My advice is to view this map with a skeptical eye. Marine intelligence may not be keeping up with current events, pals. Our basic expectation should be that our map will be wrong around half of the time (more so on the flank routes). We can also expect the Guard (which knows this planet much better than us) to try to force us into unfavorable corners.

This concludes my general overview of the critical factors in this rescue attempt. Once you hit the surface, boys and girls, everything will depend on what leads to each skirmish, the number and timing of regroups and the interaction of the on-site commanding officer with the troops. Are you ready? I can't heeeeeeeaaaar you! GOOD! We have a mission to accomplish. For honor, for Earth, for the Princess. Move out. Move! Move! Move! ★