



# MISSION RULES

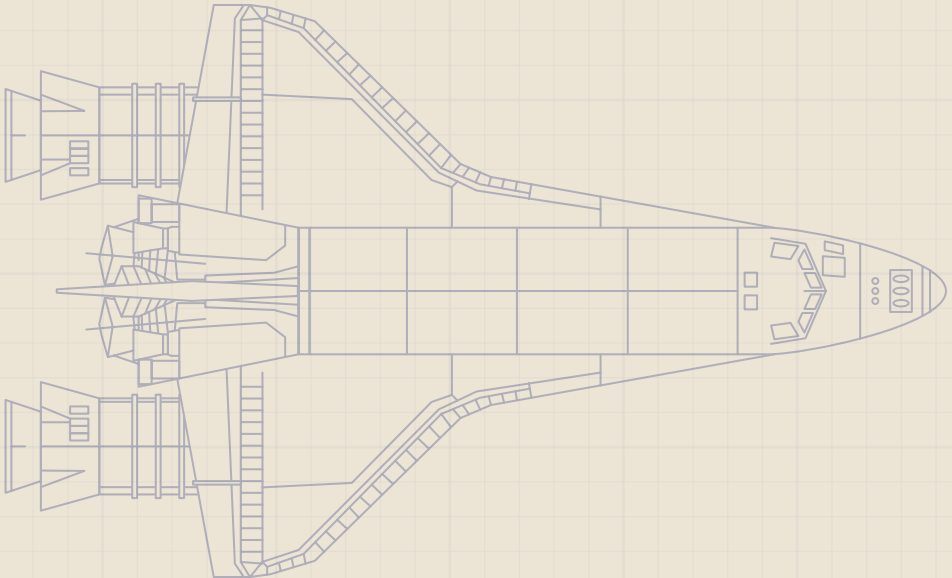
**GAME RULES**  
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## TABLE OF CONTENTS

1.0	<u>NEW SPACE</u>	3
2.0	<u>CONTENTS</u>	3
3.0	<u>OBJECTIVE</u>	3
	<u>CONTENT COMPOSITION</u>	4
	<u>MULTIPLAYER MODE</u>	8
3.1	GAME SETUP	8
3.2	STARTING A GAME	9
3.3	GAME OVERVIEW	11
3.4	END OF THE GAME	21
4.0	<u>MISSIONS</u>	22
5.0	<u>SOLO MODE</u>	24
6.0	<u>SOLO MISSIONS</u>	26
7.0	<u>SPACECRAFT MISSION DIRECTORS</u>	27
8.0	<u>ENGINEERS SPECIALTIES</u>	29
9.0	<u>NATION INTERVENTION</u>	31
10.0	<u>INVESTORS OBJECTIVES</u>	32
11.0	<u>EVENT CHARACTERISTICS</u>	33
12.0	<u>SOLO EVENT CHARACTERISTICS</u>	35
13.0	<u>TECHNOLOGIES CHARACTERISTICS</u>	37
14.0	<u>THANK YOU</u>	40



## NEW SPACE

Players take the role of Mission Directors at a New Space company, building their own rockets to lead the new age of space entrepreneurship. Several tasks await you: hiring Engineers, designing Technologies, and, of course, building your rocket in the hopes of launching your massive ship 100 km above the ground, beyond Earth's atmosphere.

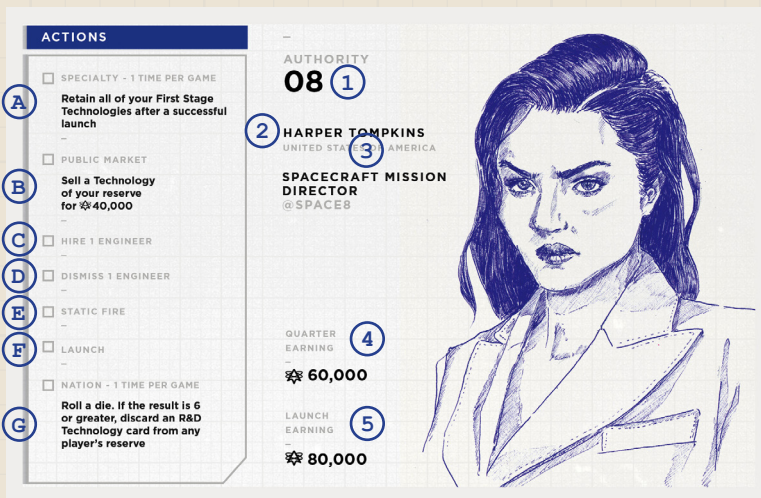
The conquest of space will take time, not to mentioned wise management of your Engineers and funds you've invested in this project. You will also need to keep an eye out for your competition, who will do anything to achieve this feat before you do.

## CONTENTS

1.0	<u>CREDITS CARDS</u> .....	66
2.0	<u>ENGINEER CARDS</u> .....	30
3.0	<u>TECHNOLOGY CARDS</u> .....	110
3.1	FIRST STAGE .....	28
3.2	UPPER STAGE .....	26
3.3	PAYLOAD .....	28
3.4	R&D .....	28
4.0	<u>INVESTOR CARDS</u> .....	20
5.0	<u>EVENT CARDS</u> .....	20
6.0	<u>MISSION CARDS</u> .....	12
7.0	<u>SPACECRAFT MISSION DIRECTOR CARDS</u> .....	12
8.0	<u>PLAYER BOARDS</u> .....	5
9.0	<u>LAUNCH PAD BOARDS</u> .....	5
10.0	<u>SPACE OPERATIONS CENTER BOARD</u> .....	1
11.0	<u>HELP CARDS</u> .....	5
12.0	<u>12-SIDED LAUNCH DICE</u> .....	11
13.0	<u>SOLO MISSION CARDS</u> .....	6
14.0	<u>SOLO EVENT CARDS</u> .....	14
15.0	<u>RULES BOOK</u> .....	1

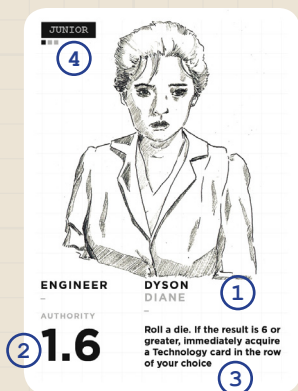
## OBJECTIVE

As a Mission Director, you must complete the space program entrusted to you. Hire your Engineers, design Technologies, and build the rocket that will lead you to win Investor contracts. Become the first to achieve the objective that will make you a space pioneer that will go down in history.



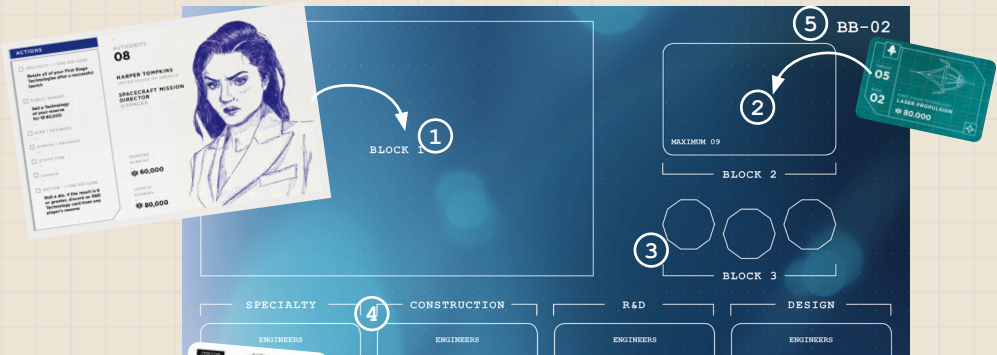
1. Mission Director authority points
2. Mission Director name
3. Mission Director Nation
4. Credits earned per round (quarter)
5. Credits earned per successful launch

- ACTIONS** (2 actions per turn)
- A.** Mission Director's unique Specialty, available 1 time per game
  - B.** Credits earned per Technology sale
  - C.** Hire 1 Engineer
  - D.** Dismiss 1 Engineer
  - E.** Perform 1 static fire
  - F.** Perform 1 launch
  - G.** Nation Intervention, available 1 time per game

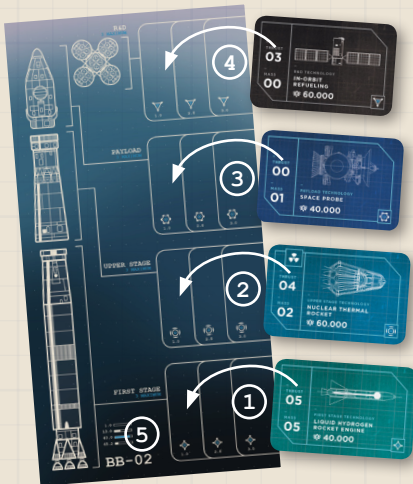


1. Engineer name
2. Engineer authority points
3. Engineer's Specialty
4. Engineer's profile  
(Junior or Senior)

Limit of 5 Engineers in hand. It is possible to discard Engineer cards from your hand only during the Administration phase, using the "Dismiss 1 Engineer" action.



1. Mission Director card location
2. Technology cards reserve  
*(9 Technology cards maximum)*
3. Additional dice  
*(3 additional dice maximum)*
4. Engineers' actions during the Planning phase
5. Player's number



1. First Stage Technologies built  
*(3 cards maximum)*
2. Upper Stage Technologies built  
*(3 cards maximum)*
3. Payload Technologies built  
*(3 cards maximum)*
4. R&D Technologies built  
*(3 cards maximum)*
5. Player's number



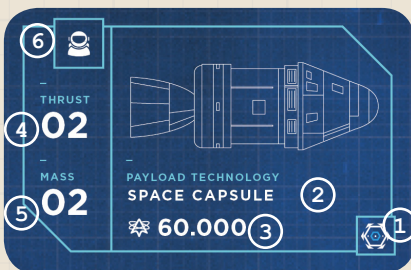
1. Investor name
2. Brand values
3. Credits earned for the success of the objective
4. Objective requirements

### COLLECTING CREDITS FROM INVESTORS

When you fulfil an Investor's objective, you immediately receive the stated Credits. Keep the Investor card next to your player board. A new card is immediately revealed so that there are always 2 Investor cards available in the Investor row.

An Investor's objective can only be fulfilled once. If the deck of Investor cards is empty, no new Investor is added.

An Investor's objective is valid only when a player fulfils the stated objective *after* the card has been revealed.



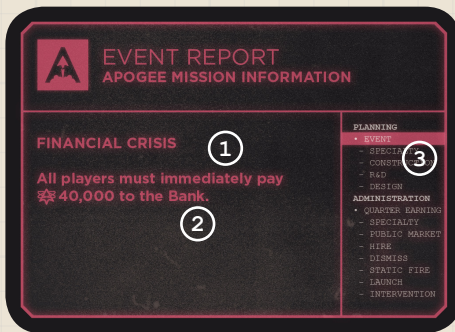
1. Technology type
2. Technology name
3. Construction cost
4. Thrust
5. Mass
6. Construction characteristic

- ◆ First Stage Technology
- Upper Stage Technology
- ⊕ Payload Technology
- ▽ R&D Technology



1. Location of Payload & R&D Technology cards after a successful launch
2. Destination and authority points required to perform a launch
3. Engineer cards location
4. Player's number

## COMPOSITION OF AN EVENT CARD



1. Event title
2. Event action
3. Event type



# MULTIPLAYER MODE

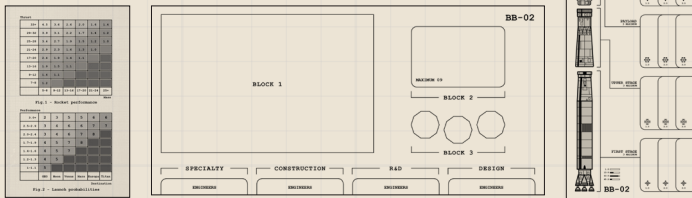
## 2 TO 5 PLAYERS

### GAME SETUP



### PLAYERS PLACE

Take a seat around the playing area and give each player a player board and a Launching Pad board with matching numbers. These are placed in front of each player. Players also receive a help card.



### TECHNOLOGY CARDS

Separate the Technology cards into 4 types of Technology decks: First Stage (**a.**), Upper Stage (**b.**), Payload (**c.**), and R&D (**d.**). Shuffle each Technology deck separately and make 4 face-down Technology decks (see image above).

### ENGINEER AND INVESTOR CARDS

Separate the two types of Engineer cards: Junior and Senior. Shuffle each type separately and make 2 face-down decks (**e.**).

Shuffle the Investor cards and form 1 face-down deck (**f.**).



## CREDITS CARDS

Make 4 different decks with the 4 types of Credits available. These four decks will act as the Bank (g.). **Each player receives 80,000 at the start of the game.**



## EVENT CARDS

Shuffle the Event cards and place them face down to the side of the playing area (h.).

## SPACE OPERATIONS CENTER BOARD

Place the Space Operations Center board to the side of the playing area (i.).

## LAUNCHING DICE

Set up a reserve with the 10 blue dice on the side of the playing area; players can acquire them during the game. Place the main (white) die in the center of the playing area, accessible to all players.

# STARTING A GAME

## MISSION SELECTION

Before the game begins, players agree on the Mission to complete - it cannot be changed during the game. In case of disagreement, the less-experienced chooses which Mission to complete.

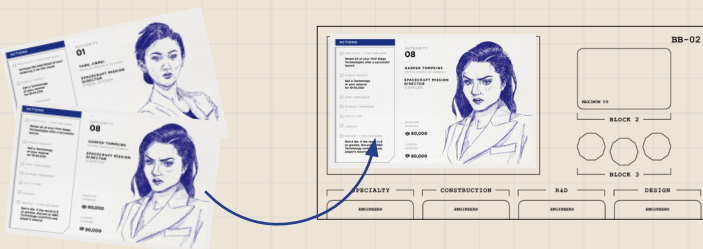
Keep the chosen Mission card on the playing area and return the rest of the Mission cards in the box.

See the Missions chapter for the duration and difficulty of each Mission (p.22).

## MISSION DIRECTOR SELECTION

Deal 2 Mission Director cards face-down to each player, starting with the youngest player, then continue clockwise.

Players choose and keep 1 Mission Director from the 2 cards received, and place the card on their player board. Any unselected Mission Director cards return to the box.



### HIRING STARTING ENGINEERS

Starting with the Mission Director with the most authority, players take turns hiring Engineers and adding them to their hand. The active player has 2 options: hire 1 Senior Engineer (from the deck of Senior Engineers), or recruit 2 Junior Engineers (from the deck of Junior Engineers). Players add the card(s) to their hand without revealing them to their competitors. The recruitment of Engineers does not require Credits.



OR



### TECHNOLOGY ROWS

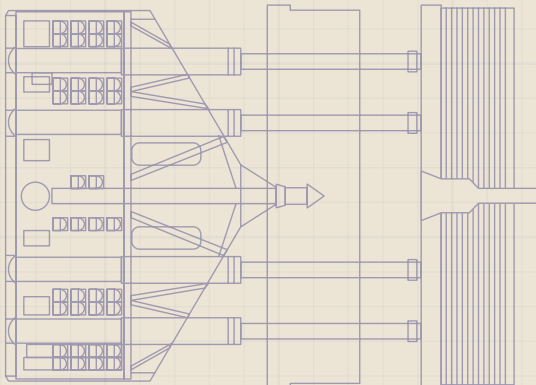
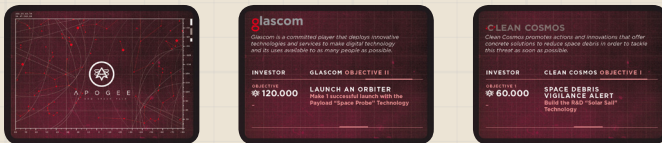
Make 3 rows of Technology by revealing the first 3 cards of First Stage, Upper Stage and Payload Technologies as shown below.



R&D Technology cards do not have a row.

### INVESTOR ROW

Make the row of Investor cards by revealing the top 2 cards from the Investor pile and place them to the side of the playing area.



## GAME OVERVIEW

A game is played in rounds. A round consists of 2 phases, played one after the other, in this order:

- A. **Planning phase:** Players reveal 1 event card, then assign actions to their engineers.
- B. **Administration phase:** Players collect their Credits and perform up to 2 actions with their Mission Director.

The Planning phase is played simultaneously by all players. In the Administration phase, the player whose Mission Director has the most authority goes first, followed by the player whose Mission Director has the next most authority, and so on.

A round is referred to as a “quarter” in the game.

### A. PLANNING PHASE

The Planning phase is divided into 2 steps. First, an Event is revealed at the beginning of each round. Then players assign actions to their Engineers.

#### 1. EVENTS



At the beginning of each round, an Event card is revealed and is kept visible to all players.

If an action has to be taken, it must be immediately resolved by the players concerned. If the Event card is not specific, the Event applies to all players and is valid for the entire round.



Keep the Event card visible throughout the round; the previous cards are covered to form a face-up stack of cards. The influence of an Event is limited to a single game round.

Event cards are only used once per game. If all 20 Event cards are revealed, the game goes on without adding any new Events.

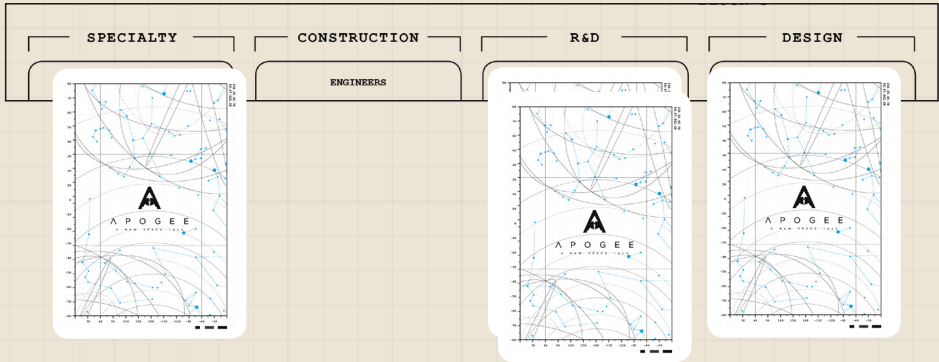
**Note:** Event cards make it easy to count rounds. Players can count revealed cards in order to know the number of rounds played.

#### 2. ENGINEERS ACTIONS

All players assign actions to their Engineers in order to develop the activity of their company. Players simultaneously place their Engineers face down on the 5 actions available on their player board as well as on the Space Operations Center board.

- **Specialty:** Activate the Engineer Specialty
- **Construction:** Build a Technology card from your reserve (i.e. from your player board) by paying the indicated number of Credits

- **R&D:** Draw an R&D card and add it to your reserve
- **Design:** Draw a Technology card from the row of your choice and add it to your reserve on your player board
- **Space Operations Center:** Assign an Engineer to the Space Operations Center; this is necessary for any launch



Assigning actions to Engineers does not require Credits.

**Note:** You can place as many Engineers as you want on the actions. It is not mandatory to assign an action to all of your Engineers. An unused Engineer card does not generate an effect.

Once all players have placed their Engineer cards, the resolution of the Planning phase begins in the following order:

- Specialties resolution**
- Constructions resolution**
- R&D resolution**
- Design resolution**

**Note:** The Space Operations Center is resolved during the Administration phase.

#### **a. SPECIALTIES RESOLUTION**

Reveal all Engineer cards placed on the Specialty action. The Specialties of each Engineers are carried out, starting with the Engineer with the highest authority and ending with the lowest.

The Specialty of an Engineer can be immediate, or it can remain active throughout the round (the card will say which it is). For more details refer to the Engineer Specialties section (p.29).

### Specialties requiring a die roll

If your Engineer's specialty requires a die roll, roll the die immediately. Use the main die common to all players. If the roll is successful, the Specialty is resolved. If the roll is unsuccessful, you may use one or more additional dice from your reserve to help meet the requirements for the Engineer's specialty. When dice from a player's reserve are used, they are discarded after use, regardless of the result, and are returned to the dice pool.

**Example:** Suzanne placed 2 Engineers on the Specialty action, and Pedro none. Suzanne reveals her 2 Engineers cards, **Qian Tao** (2.0) and **Géza Szebehely** (8.4). She begins by activating **Géza Szebehely's** Specialty, which has a greater authority, and immediately replaces the Payload Technology line. The 3 cards in the Payload row are discarded to the bottom of the pile and 3 new Payload cards are revealed.



Then Suzanne activates **Qian Tao's** Specialty and rolls the main die, she rolls a 7 and succeeds. The Specialty allows her to draw 2 additional R&D cards which she immediately adds to her reserve on her player board.

**Note:** Technologies acquired using a Specialty can be built in the same round.

If no Engineer card is on the Specialty action, go directly to Constructions resolution.

### b. CONSTRUCTIONS RESOLUTION

Reveal all the Engineer cards placed on the Construction action space on your player board. You may build as many Technologies as there are Engineers on your Construction space. When you build a Technology from reserve, pay the listed cost (in Credits) stated on the Technology card. All payments go to the Bank. Then, place the Technology card in the corresponding slot on your Launch Pad board.

If a player cannot pay for the Construction of a Technology card, that Engineer's action is lost and the Technology card remains in the player's reserve. All players build simultaneously. Engineers' authority is not used for Construction.

**Example:** Suzanne placed 1 Engineer on the Construction action space on her player board. Pedro placed 2 Engineers on the Construction space on his player board. Pedro and Suzanne build at the same time.

Suzanne has  $\$100,000$  and 1 Technology in her reserve. She pays  $\$40,000$  to the Bank in order to build the "Small Space Shuttle" Technology from her reserve, and places it on her Launch Pad board.

Pedro has  $\$80,000$  and 2 Technologies in his reserve. He pays  $\$80,000$  to the Bank to build his "Nuclear Pulse Propulsion" Technology. Not having enough Credits, he cannot build his "Solar Sail" Technology of, which costs  $\$40,000$ . The action of his second Engineer is lost.

**Note:** A built Technology cannot be removed from a Launch Pad board. The only exception is the Specialty of Mission Director **Anatoliy Feoktistov**, which allows it.

**ATTENTION:** Some Technologies have specific characteristics that you must take into account when building. These are specified in the Technologies characteristics section (p.37).

If no Engineer card are left on the Construction action, proceed to the R&D resolution.

### c. R&D RESOLUTION

Reveal all Engineer cards placed on the R&D action space. The player whose Engineer has the highest authority draws first. This player draws as many R&D cards as he has Engineers placed on the R&D action space.

Then, the player with the next highest Engineer authority takes their turn, and so on until all players who placed Engineers on the R&D action space have drawn.

Once the R&D cards have been drawn, the players choose a single card (from the ones they've drawn) to keep in their reserve. The other R&D cards are discarded face down to the bottom of the R&D Technology deck.

**Example:** Suzanne has 3 Engineers on the R&D action: **Chandresh Gokhale** (4.4), **Katalina Tsiolkovsky** (3.6) and **Qian Tao** (2.0). Pedro has 2 Engineers in R&D: **Rafał Góra** (7.2) and **Kathy Johnson** (0.8). It's Pedro who will start drawing because **Rafał Góra** is the Engineer with the highest authority. He draws 2 R&D cards, and then it is Suzanne's turn who draws 3 R&D cards. Both players keep a single card, which they add to their reserve, face up. The other cards are discarded.

**Note:** Gaining R&D Technology cards does not require Credits.

If no Engineer card is on the R&D action, go directly to the Design resolution.

### d. DESIGN RESOLUTION

Reveal all Engineer cards placed on the Design action space. Add up the authority points of your Engineer cards to determine which player will start the Design Resolution step.

Players add the authority of all their Engineers on the Design space, and the player

with the most authority plays first, followed by the player with the next most authority, and so on until all players have had a turn. In the Design Resolution, players with Engineers on the Design action space choose a Technology card from the row of their choice (First Stage, Upper Stage, or Payload). The chosen Technology card is placed in the reserve on their player board face up. **You can only select one card per turn.**

In the event of a tie, the player who has the Engineer with the highest authority assigned to the Design action begins the selection of a Technology card.

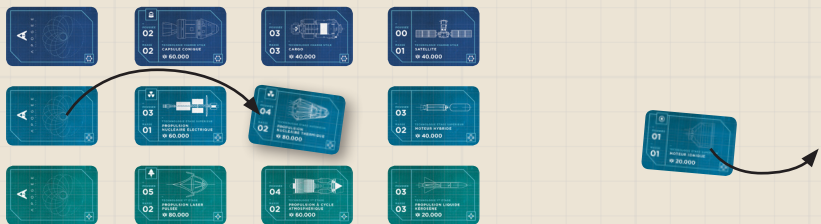
**Note:** Acquiring cards during the Design action does not require Credits.

When a card is chosen by a player, a new Technology card from the corresponding Technology deck is immediately revealed and placed in the corresponding row. A row can be partially full if the Technology deck is empty.

**Example:** Suzanne has 2 Engineers on the Design action: **Sebastian Von Braun** (8.0) and **Katalina Tsiolkovsky** (3.6). Pedro has 1 Engineer on Design: **Carlotta Pelterie** (9.2). Suzanne starts, because her Engineers have the highest cumulated authority ( $8.0+3.6 = 11.6$ ).

She selects the “Ion Thruster” Technology card available in the Upper Stage row and adds it to her reserve.

A new Upper Stage card - “Nuclear Thermal Rocket” - is revealed to complete the row.



It's Pedro's turn, and he chooses the “Nuclear Thermal Rocket” Technology card that was just added. An Upper Stage card is again revealed to fill in the empty spot in the row.

**The maximum of Technology cards in reserve is 9.** If the limit is exceeded after adding a Technology card to your reserve, discard Technology cards until you are back at the reserve limit. You may choose which Technology cards to discard.

## END OF THE PLANNING PHASE

Once all actions are resolved, players move on to the Administration phase.



## B. ADMINISTRATION PHASE

During the Administration phase, players collect Credits for the round and perform up to two actions with their Mission Director.

### COLLECTION QUARTER EARNINGS

Credits are awarded to each player based on the number of Engineers in their hand. The Credits are allocated as follows:

- 0 Engineer → ☆ 60,000
- 1 Engineer → ☆ 40,000
- 2 Engineers → ☆ 20,000
- 3 Engineers → ☆ 0
- 4 Engineers → ☆ -20,000
- 5 Engineers → ☆ -40,000



Credits collected by the player are added near their player board, visible to all. If the collection is negative, it is up to the player to pay the Credits to the Bank. If a player cannot pay all of the Credits owed, **that player skips their Administration turn and must dismiss 1 Engineer for every ☆20,000 Credits they are unable to pay.**

**Note:** All Engineers in a player's hand are counted in the allocation of Credits, even if they did not perform any actions this round.

### PERFORM DIRECTOR ACTIONS

Starting with the Mission Director with the most authority and going down, players perform up to two actions from the following actions:

- **Activate Mission Director's Specialty:** Activate a unique ability, available once per game.
- **Sell 1 Technology card:** Sell a Technology from your reserve for ☆ 40,000.
- **Hire 1 Engineer:** Draw one Junior or Senior Engineer card.
- **Dismiss 1 Engineer:** Discard an Engineer card, Junior or Senior, from your hand.
- **Perform a static fire:** For a rocket with its first 2 Stages built, roll a die. If the result is 4 or greater, acquire an additional die.
- **Perform a launch:** Try to launch a completed rocket toward its destination.
- **Activate your Nation intervention:** Activate an ability common to all Mission Directors of the same Nation, available once per Director and per game.

**Note:** Except for static fire and launch, it is possible to perform the same action twice in a turn.

A player is not required to use their 2 actions during their Administration turn.

**Example:** Suzanne plays Mission Director **Harper Tompkins** (Authority of 8) and Pedro has **Yelena Tereshkova** (Authority of 6). Suzanne starts because she has the Mission Director with the highest authority. She chooses to sell 2 Technology cards from her reserve to the Public Market and receives  $\$$  80,000 from the Bank. Pedro decides to only use his Mission Director's Specialty, which allows him to acquire a Technology from a Technology row, which he adds to his reserve. Pedro will no longer be able to use his Mission Director's Specialty during the game.

### Activate the Mission Director's Specialty



The active player can use their Mission Director's Specialty, which is immediately resolved and available only once during the game.

Each Director has a unique Specialty stated on their card. See the Mission Directors' Specialty section for details (p.27).

### Sell 1 Technology card

The active player sells an unbuilt Technology card from their reserve to the Public Market for  $\$$  40,000. The Credits are immediately added to the player's hand and the Technology card returns under the corresponding deck.

It is possible to sell multiple Technologies per turn, but each sale consumes one Mission Director action.



Any Technology card sold is worth  $\$$  40,000, regardless of the type of Technology (First Stage, Upper Stage, Payload, or R&D).

It is possible to sell a Technology acquired during the same game round.

### Hire 1 Engineer

The player draws an Engineer card from the pile of his choice (Junior or Senior). This action does not require Credits.

The player immediately adds the Engineer card to their hand.

### Dismiss 1 Engineer

The active player discards an Engineer card (Junior or Senior) from their hand, face down. This action does not require Credits.

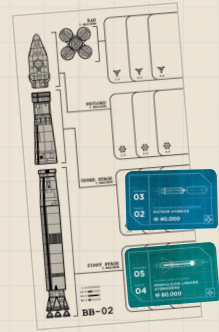
The player chooses the card to discard and places it face down under the corresponding deck (Junior or Senior).

Engineer cards placed on the Space Operations Center during the Planning phase of the round cannot be discarded.

### Perform a static fire

If a player built a rocket with at least 1 First Stage Technology and 1 Upper Stage Technology on his Launch Pad board, they can perform a static fire.

The player rolls the main die, **if the result is 4 or greater, he acquires 1 additional die** (blue) which is added to their reserve on their player board. That player can keep a maximum of 3 launching dice in reserve. However, **if the dice roll is unsuccessful, the player cannot use their spare dice to succeed.**



Several static fires can be performed with the same rocket.

**ATTENTION:** The static fire action is only available once per player's turn.

### Perform a launch

Players with a completed rocket can launch.

For a rocket to be considered complete, it must be built on the player's Launch Pad board with at least 1 Technology of the following types:

First Stage, Upper Stage, and Payload.

The player must also have one or more Engineers on the Space Operations Center board with sufficient authority to reach the desired destination.

A player must **validate these two conditions to perform a launch**; otherwise, the launch is impossible.



**Note:** One player's Engineers on the Space Operations Center board cannot be used for another player's launch.

### Calculating the performance of a rocket

To determine whether a built rocket will perform well enough to launch, you must calculate its performance.

To do this, **add up the thrust of each Technology built**, as well as **the mass of each Technology built**. Using those totals, refer to the table on the right (or on the help card) for the performance check.

**Note:** If the thrust or mass of a rocket is not shown on the table, the rocket cannot be launched.

### Calculating of the launch probability

Once the performance number is known, refer to the second table to find out the probability of a successful roll. It will indicate the minimum number needed to roll in order to achieve a successful launch.

**Thrust**

33+	4.5	3.6	2.6	2.0	1.6	1.4
29-32	3.9	3.1	2.2	1.7	1.4	1.2
25-28	3.4	2.7	1.9	1.5	1.2	1.0
21-24	2.9	2.3	1.6	1.3	1.0	
17-20	2.4	1.9	1.4	1.1		
13-16	1.9	1.5	1.1			
9-12	1.4	1.1				
7-8	1.2					
	5-8	9-12	13-16	17-20	21-24	25+

**Mass**

Using your rocket's thrust and mass values, find the intersecting performance number in the table. (Example: If your thrust is 27 and your mass is 15, the launch performance number will be 1.9.)

**LAUNCH PROBABILITY TABLE**

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**Performance**

3.0+	2	3	5	5	6	6
2.5-2.9	3	4	6	6	7	7
2.0-2.4	3	4	6	7	8	
1.7-1.9	4	5	7	8		
1.4-1.6	4	5	7			
1.2-1.3	4	5				
1-1.1	5					
	GEO	Moon	Venus	Mars	Europa	Titan

**Destination**

Match your rocket's performance number with its destination. The number indicated is the minimum number you must roll in order to have a successful launch. (Example: If your rocket's performance number is 1.9 and you are launching to Venus, the minimum number you must roll for a successful launch is 7.)

---

### Rocket launch

Once the probability of the launch is known, and if the rocket is efficient enough to reach the target destination, the player rolls the main die to know the launch result.

### Successful launch

If the dice roll is equal or greater to the probability number, the launch is successful! Upon a successful launch, the player immediately earns  $\$80,000$ .

In this case, all First Stage, Upper Stage and R&D Technology cards on the rocket return to the player's reserve. Payload Technology cards are placed on the Space Operations Center board on the space with the player's number.



In the event of a failure, the launch is interrupted and the rocket remains intact on the Launch Pad board.

**ATTENTION:** The launch action is only available once per player each round.

**Example:** Pedro has a completed rocket and wants to launch to the Moon. He starts by adding up the thrust, then the mass of each Technology built from his rocket:

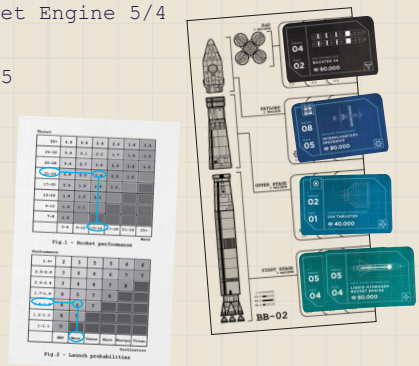
- First Stage: 2x Liquid Hydrogen Rocket Engine 5/4
- Upper Stage: Ion Thruster 2/1
- Payload: Interplanetary Spaceship 8/5
- R&D: Booster x4 4/2

**Thrust: 24                      Mass: 16**

**Performance: 1.6**

To launch to the Moon, Pedro will have to make a 5 or greater.

Pedro has placed his Engineer **Patricia Jackson** (10.2) on the Space Operations Center board during the Planning phase, so he can launch. He rolls the main die for a result of 7 - his roll is successful. The First Stage, Upper Stage, and R&D Technology cards return to Pedro's reserve, the "Interplanetary Spaceship" card is placed on the Space Operations Center board until the end of the game.



### Using additional dice

A player may use one or more additional dice from their reserve to make a new attempt at the roll. Additional attempts have to be made immediately after a failure. They do not count as an additional action through regular gameplay.

Any additional dice used are discarded to the side of the playing area and can again be acquired by a player through regular gameplay.

**Note:** It is possible to build new Technologies on a rocket whose launch has been interrupted.

If the number of Technology cards in a player's reserve exceeds the limit of 9 after a successful launch, the player must discard Technology cards face-down, below the corresponding Technology pile, without earning any Credits. The player may choose which cards are discarded, and can discard Technology cards already in his reserve or cards from their rocket.

### Activate your Nation Intervention

The active player can use Nation Intervention, which is only available once per player per game. The Nation Intervention action is resolved when activated by a player. However, if the die roll is unsuccessful, **the player cannot use their reserve dice to attempt a re-roll** and will not be able to play this action during the game.

Each Nation has a unique ability stated on the Mission Director cards. See the Nations Intervention section for details (p.31).

### End of the Administration phase

Once all players have completed their Administration phase, they move on to the next round. Engineer cards return to their player's hand.

## END OF THE GAME

The game ends when a player completes the objective on their Mission card. Play continues until the current round ends. **The player or players who fulfill the objective of the Mission during this last round are declared the winners.**

### Tiebreakers

For seasoned players, it is possible to determine a single winner in the event of a tie. To settle ties, the tied players (who have fulfilled the objective in the last round), add up the total authority of their Engineers team as well as that of their Mission Director. The player with the lowest cumulated authority is declared the winner.

If a tie persists, the player with the Mission Director with the lowest authority wins the game. To use this rule, **the players must agree on it before starting the game.**

## MISSIONS

### N°    DESCRIPTION

LEVEL: FIRST GAME                                    DURATION: 15 MIN.

- 1 Training: Successfully launch a rocket into geostationary orbit (GEO) with at least 1 R&D Technology built on your rocket**

LEVEL: EASY    DURATION: 20 MIN.

- 2 Successfully launch a rocket into geostationary orbit (GEO) with the "Manned Flight" characteristic of at least 2 astronauts**

LEVEL: EASY    DURATION: 30 MIN.

- 3 Complete 3 Investor objectives**  
 The first player to complete 3 Investor objectives is immediately declared the winner. This is the only Mission that does not allow a tie.

LEVEL: MEDIUM    DURATION: 40 MIN.

- 4 Drop the Payload Technologies "Satellite" and "Cargo" on the Moon with a rocket without any R&D Technology built**  
 Players may not build R&D Technologies. However, players can acquire them and sell them in the Public Market.

LEVEL: MEDIUM    DURATION: 50 MIN.

- 5 Complete 2 successful manned flights to the Moon without using the Mission Directors Nation Intervention during the game**  
 In order to launch, players must build and drop one or more Technology card with the characteristic "Manned flight" on the Moon. This must be done for every launch.

LEVEL: MEDIUM    DURATION: 50 MIN.

- 6 Drop 1 R&D "CubeSat" Technology and 1 Payload "Satellite" Technology on Venus with a rocket's total cost of less than  $\$160,000$**   
 Calculate the cost of a rocket by adding up the Construction price of the Technology cards built.  
 The mission may require multiple launches, in which case each rocket launched must cost less than  $\$160,000$ .

LEVEL: MEDIUM    DURATION: 50 MIN.

- 7 Reach the furthest destination by the end of the 8<sup>th</sup> round**  
 When the 8<sup>th</sup> Event card is revealed, the player(s) who have reached the furthest destination from Earth by the end of the round win the game.



LEVEL: MEDIUM

DURATION: 60 MIN.

**8 Complete a successful manned flight to Mars with a rocket's thrust being 29 or greater**

Players must drop at least one Technology card with the "Manned Flight" characteristic on Mars. The rocket thrust calculation takes into account the Specialties of Engineers and Mission Directors.

LEVEL: HARD

DURATION: 90 MIN.

**9 Drop 1 Payload "Cargo" Technology and 5 Astronauts on Mars without using Technologies with the "Nuclear" characteristic**

Players may not build First Stage and Upper Stage Technologies with the "Nuclear" characteristic. However, players can acquire them and sell them in the Public Market. The mission may require multiple launches.

LEVEL: HARD

DURATION: 120 MIN.

**10 Drop 2 R&D "CubeSat", 1 Payload "Satellite", and 1 "Cargo" Technologies on Europa**

The mission may require multiple launches. With 5 players, not all players will be able to draw R&D "CubeSat" Technologies - it's up to you to find out the hard way!

LEVEL: HARD

DURATION: 120 MIN.

**11 Drop 6 astronauts on Titan**

Players must drop one or more Technology cards with the "Manned Flight" characteristic on Titan. The mission may require multiple launches.

LEVEL: HARD

DURATION: 120+ MIN.

**12 Drop 1 Payload "Cargo" Technology on Mars, 3 astronauts on Titan and 4 astronauts on Europa.**

**The performance of each rocket must be 2.6 or greater**

Players may not launch a rocket with a performance lower than 2.6.

When the Mission is completed by one of the players, the game continues until the end of the round. At the end of the round, if several players have achieved the objective, all the players who have achieved it are declared winners.

Some Missions may require multiple launches. When a launch is successful, **Payload Technologies and some R&D Technologies are permanently placed on the Space Operations Center board** at the player's number.

# SOLO MODE

## 1 PLAYER

The setup and course of the Solo mode are similar to the Multiplayer mode. Below are the specific rules changes for playing Solo:

- Mission cards are replaced by Solo Mission cards.
- The player's Mission Director cannot use their Nation Intervention.
- Event cards are replaced by a mix of Event cards and Solo Event cards (see details below).

In Solo Mode, you are the only company that will manage the objectives assigned. You have a limited number of rounds to complete your objective, as stated on the Solo Mission card.

### SOLO GAME SETUP

The setup of Technology rows, Investor cards, Credit, dice, and game boards is the same as Multiplayer.

#### Mission selection

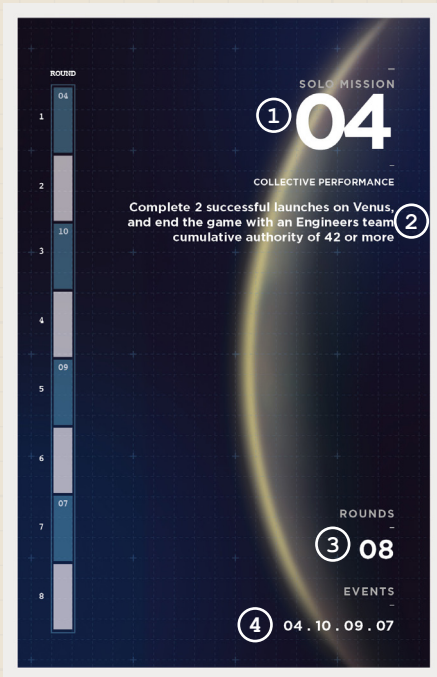
Choose a card from the 6 Solo Missions cards available. The difficulty and the playing time vary depending on the chosen objective.

#### Event card pile composition

Each Mission has a list of specific Solo Event cards. To play, you will create a deck consisting of Solo Event cards and basic Event cards.

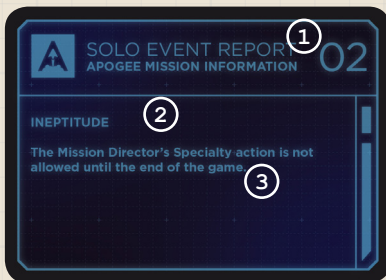
1. Use the Solo Event cards that correspond with the numbers stated on the Mission card. Form a face-down deck of Event cards in the order shown on the selected Mission card. The first card in the list is at the top of the deck.
2. Shuffle the basic Event cards and draw - without revealing them - as many basic Event cards as there are Solo mode Event cards.
3. Insert the basic Event cards between the Solo event cards. The card at the top of the pile is a Solo Event card, and the one at the bottom is a basic Event card.





1. Mission number
2. Mission objective
3. Rounds to complete the Mission
4. Number of Solo Event cards to use for this Mission

## COMPOSITION OF A SOLO EVENT CARD



1. Event number
2. Event title
3. Event action

**Note:** The total number of Event cards must correspond to the number of rounds in the Mission.

When selecting the Mission Director, starting Engineers, starting Credits, and creating the Technology row, follow the Multiplayer rules.

## GAME OVERVIEW

The course of the Solo game is identical to a Multiplayer game. On each round, complete the 2 game phases:

- 1. Planning phase:** Reveal 1 Event card per round, then assign actions to your Engineers.
- 2. Administration phase:** Collect your Credits and perform up to 2 actions with your Mission Director.

## END OF THE GAME

Victory is achieved if the Mission objective is met before the end of final round (as stated on the Mission card). If the objective is not reached on the last round of the game, the Mission is a failure.

## SOLO MISSIONS

N°	DESCRIPTION
	LEVEL: EASY <span style="float: right;">DURATION: 6 ROUNDS</span>
<b>1</b>	<b>Successfully launch a rocket into geostationary orbit (GEO), and end the game with at least <math>\text{€}</math>420,000 in reserve</b> <small>SOLO EVENTS SEQUENCE: 01 - 08 - 05</small>
	LEVEL: EASY <span style="float: right;">DURATION: 6 ROUNDS</span>
<b>2</b>	<b>Complete 4 Investors objectives and end the game with at least <math>\text{€}</math>320,000 in reserve</b> <small>SOLO EVENTS SEQUENCE: 02 - 08 - 09</small>
	LEVEL: MEDIUM <span style="float: right;">DURATION: 8 ROUNDS</span>
<b>3</b>	<b>Drop 6 astronauts and 1 Payload "Cargo" Technology on the Moon</b> <small>SOLO EVENTS SEQUENCE: 03 - 09 - 11 - 12</small>
	LEVEL: MEDIUM <span style="float: right;">DURATION: 8 ROUNDS</span>
<b>4</b>	<b>Complete 2 successful launches on Venus, and end the game with an Engineers team's cumulative authority being 42 or more</b> <small>SOLO EVENTS SEQUENCE: 04 - 10 - 09 - 07</small>
	LEVEL: HARD <span style="float: right;">DURATION: 10 ROUNDS</span>
<b>5</b>	<b>Drop 4 R&amp;D "CubeSat" Technologies and 1 Payload "Rover" Technology on Mars</b> <small>SOLO EVENTS SEQUENCE: 04 - 06 - 13 - 05 - 07</small>
	LEVEL: EXTREME <span style="float: right;">DURATION: 10 TOURS</span>
<b>6</b>	<b>Drop 3 astronauts on Europa and 4 astronauts on Titan</b> <small>SOLO EVENTS SEQUENCE: 03 - 08 - 11 - 14 - 10</small>

## SPACECRAFT MISSION DIRECTORS

### UNITED STATE OF AMERICA



#### **Andrew Wingfield**

RAW UNIVERSE

AUTHORITY: 5

Earn immediately  $\$60,000$ .

- The player immediately receives the Credits.



#### **Harper Tompkins**

SPACE8

AUTHORITY: 8

Retain all of your First Stage Technologies after a successful launch.

- This Specialty must be used before a launch during the same Administration phase.



#### **Liam Van Horn**

BLAZE INFLUENCE

AUTHORITY: 12

Sell the number of Technologies of your choice at the Public Market.

- The player immediately receives  $\$40,000$  per Technology sold.
- Only Technologies from your reserve can be sold.



#### **Laura Grey Walter**

ORBITER SYSTEMS

AUTHORITY: 15

Immediately build a Payload Technology from your reserve for free.

- The Payload Technology is immediately added to the player's Launch Pad board.

### RUSSIAN FEDERATION



#### **Ekaterina Vostochny**

SLOY ENERGIYA

AUTHORITY: 2

Immediately build a Technology with the "Nuclear" characteristic from your reserve for free.

- The player may build a First Stage or Upper Stage Technology with the "Nuclear" characteristic.



#### **Yelena Tereshkova**

METEOR GROUP

AUTHORITY: 6

Immediately gain a Technology from the row of your choice.

- The player chooses a card from either the First Stage, Upper Stage, or Payload Technologies rows. Reveal a new card in the row as performed during the Design resolution of the Planning phase.
- The player cannot acquire R&D Technology card with this Specialty.



### Mikhail Korolev

RED STARS

AUTHORITY: 10

Immediately draw 2 R&D Technology cards and keep them in your reserve.

- If there is only one R&D card left when using this Specialty, only one card is added to your hand. This Specialty is not available if the R&D Technology deck is empty.



### Anatoliy Feoktistov

PLAMYA AEROSPACE

AUTHORITY: 14

Sell one of your already-built Technology cards to the Public Market for  $\$60,000$ .

- The sold Technology card is returned to the bottom of the corresponding Technology deck. This Specialty can be applied to all types of Technologies.

## PEOPLE'S REPUBLIC OF CHINA



### Yang Jinmei

OPAL SYSTEM

AUTHORITY: 1

Increase the total thrust of your rocket by 2 for this round.

- This Specialty must be used during the same Administration phase as the launch.



### Shuguang Jun

CHIH SUNG-TZU 3

AUTHORITY: 5

Reduce the authority needed to validate your rocket launch at the Space Operations Center by 4.

- This Specialty must be used during the same Administration phase as a successful launch.



### Zhang Kang

DRAGON FLIGHT

AUTHORITY: 7

Dismiss any number of Engineers of your choice and immediately receive  $\$20,000$  per dismissed Engineer.

- Discarded Engineers are placed under the corresponding Engineer pile. You immediately receive  $\$20,000$  per dismissed Engineer.



### Fei Lihua

ASTRAL ENERGY

AUTHORITY: 16

Immediately hire 2 additional Senior Engineers.

- If only one Senior Engineer card is available when using this Specialty, only one card is added to your hand. This Specialty is not available if the Senior Engineer deck is empty.

## SPECIALTIES OF ENGINEERS

### JUNIOR



**IRINA KEMURDZHIAN**

**AUTHORITY: 0.4**

**NATALIE RESNIK**

**AUTHORITY: 4.0**

Immediately replace one line of Technology in the row.

- Discard all cards in any Technology row of your choice (First Stage, Upper Stage, or Payload). Place these cards at the bottom of the corresponding deck. Then add and reveal 3 new cards to replenish the row.



**KATHY JOHNSON**

**AUTHORITY: 0.8**

Increase the thrust of each First Stage “Solid Rocket Booster” Technology card on your rocket by 2 for this round.

- The additional thrust is to be considered for the calculation of the rocket’s performance.



**MALVINA GLUSHKO**

**AUTHORITY: 1.2**

Add this Engineer to the Space Operations Center with an authority of 8.2.



**DIANE DYSON**

**AUTHORITY: 1.6**

Roll a die. If the result is 6 or greater, immediately acquire a Technology card in the row of your choice (First Stage, Upper Stage, or Payload).

- If the roll fails, you may use one or more additional dice from your reserve to make a successful roll. Any additional dice used are discarded to the side of the playing area.



**QIAN TAO**

**AUTHORITY: 2.0**

Roll a die. If the result is 4 or greater, immediately draw 2 R&D Technology cards.

- Keep the 2 cards and place them in your reserve.
- If the roll fails, you may use one or more additional dice from your reserve to make a successful roll. Any additional dice used are discarded to the side of the playing area.



**FLORENTINA COANDĂ**

**AUTHORITY: 2.4**

Roll a die. If the result is 4 or greater, build a free Technology from your reserve with a Construction cost of  $\$$ 20,000.

- You may only build Technologies that have a construction cost of  $\$$ 20,000, as stated on the card.
- If the roll fails, you may use one or more additional dice from your reserve to make a successful roll. Any additional dice used are discarded to the side of the playing area.



**OLIVER HOOKER**

AUTHORITY: 2.8

Roll a die. If the result is 4 or greater, immediately earn  $\$60,000$ .

- If the roll fails, you may use one or more additional dice from your reserve to make a successful roll. Any additional dice used are discarded to the side of the playing area.

**MATVIY LYULKA**

AUTHORITY: 3.2

Immediately sell a Technology card from your reserve to the Public Market for  $\$40,000$ .

- This Specialty is available for all types of Technology. The discarded Technology card is placed on the bottom of the corresponding Technology deck.
- Immediately receive the Credits from the sale.

**KATALINA TSIOLKOVSKY**

AUTHORITY: 3.6

Pay  $\$20,000$  to acquire 1 additional launching die.

- If the player does not have the necessary Credits, the Specialty is lost.

**CHANDRESH GOKHALE**

AUTHORITY: 4.4

Reduce the total mass of your rocket by 1 for this round.

- The reduced mass is to be included when calculating the rocket's performance.

**AIRI HORIKOSHI**

AUTHORITY: 4.8

Increase the thrust of each Upper Stage "Ion Thruster" Technology card on your rocket by 1 for this round.

- The additional thrust is to be included when calculating the rocket's performance.

**ETHAN N. MAUGHMER**

AUTHORITY: 5.2

Reduce the total cost of each player's Construction action by  $\$20,000$  for this round.

- Players pay  $\$20,000$  less regardless of how many Technology cards they build. The  $\$20,000$  is to be deducted directly from the Construction price. It is possible for a player to build a Technology for free while that Specialty is active. If a player does not build Technologies this turn, they do not benefit from the reduction.

**KOSUKE OMI**

AUTHORITY: 5.6

Increase the number of astronauts on each Payload "Space Capsule" Technology card on your rocket by 1 for this round.

**MARK FAGET**

AUTHORITY: 6.0

Immediately replace the Investor row.

- Permanently remove the currently revealed Investor cards from the game. Add and reveal 2 new Investor cards to the Investor row.

**SENIOR****FELIPE DE LA CIERVA**

AUTHORITY: 6.4

Add this Engineer to the Space Operations Center with an authority of 11.0.

**MARIE-ÈVE DE HAVILLAND**

AUTHORITY: 6.8

**GÉZA SZEBEHELY**

AUTHORITY: 8.4

Immediately replace one line of Technology in the row.

- Discard all cards in any Technology row of your choice (First Stage, Upper Stage, or Payload). Place these cards at the bottom of the corresponding deck. Then add and reveal 3 new cards to replenish the row.

**PATRICK DAHM**

AUTHORITY: 7.6

Increase the thrust of each First Stage “Liquid Engine” Technology card on your rocket by 1 for this round.

- The additional thrust is to be included when calculating the rocket’s performance.

**HITESH KALAM**

AUTHORITY: 9.6

Increase the thrust of each Upper Stage Technology card with the “Nuclear” characteristic of your rocket by 1 for this round.

- The additional thrust is to be included when calculating the rocket’s performance.

**UTTO KÜCHEMANN**

AUTHORITY: 10.8

Reduce the total mass of your rocket by 2 for this round.

- The reduced mass is to be included when calculating the rocket’s performance.

**PAHAL CHAWLA**

AUTHORITY: 12.0

Immediately replace the Investor row.

- Permanently remove the currently revealed Investor cards from the game. Add and reveal 2 new Investor cards to the Investor row.

**NATIONS INTERVENTION****UNITED STATES OF AMERICA**

Roll a die. If the result is 6 or greater, discard an R&D Technology card from any player’s reserve.

**RUSSIAN FEDERATION**

Roll a die. If the result is 6 or greater, discard up to 2 dice from any player's reserve.

**PEOPLE'S REPUBLIC OF CHINA**

Roll a die. If the result is 6 or greater, randomly discard 1 Engineer card from any player's hand.

If the roll for a Nation Intervention is unsuccessful, **that player cannot use any spare dice to succeed.** Regardless of result, this action is no longer available for the rest of the game.

## INVESTOR OBJECTIVES

Investors offer 4 types of objectives to complete: acquire a Technology, build a Technology, complete a static fire and complete a launch.

### Acquire a Technology



The first player who acquires the Technology stated on the Investor card, regardless of the method (R&D action, Design action, Specialty, etc.), immediately receives the Investor's Credits. The Technology card must be in a player's reserve to count.

### Build a Technology



The first player who builds the Technology stated on the Investor card, regardless of the method (Construction action, Specialty, etc.), immediately receives the Investor's Credits. The Technology card must be on a player's Launch Pad board to count.

### Complete a static fire



During the Administration phase, the first player who completes a static fire, while meeting the conditions stated on the Investor card, immediately receives the Investor's Credits.

### Complete a launch



During the Administration phase, the first player who successfully launches a rocket, while meeting the conditions stated on the Investor card, immediately receives the Investor's Credits.

**Note:** Investor Credits can only be acquired once during the game.

## EVENT CHARACTERISTICS

### ANTI-NUCLEAR DEMONSTRATION

Rockets with First Stage or Upper Stage Technology with the “Nuclear” characteristic are not allowed to launch this round.

- Static fires are still allowed.

### FINANCIAL CRISIS

All players must immediately pay  $\$$ 40,000 to the Bank.

- This Event does not apply if a player does not have Credits. If a player has less than  $\$$ 40,000, he must pay all of it to the Bank.

### SKEPTICAL INSURANCE COMPANIES

Players must pay  $\$$ 60,000 during the Administration phase to perform a launch this round.

- Players must pay  $\$$ 60,000 to the Bank during their Administration phase and before performing the launch.

### ENGINE FAILURE

All players with a First Stage “Liquid Engine” built on their rocket roll a die. The First Stage “Liquid Engine” is considered repaired on results of 5 or higher.

If the Technology is not repaired (i.e. die roll is 4 or less), the card is destroyed and returned to the player’s reserve.

- If a rocket is made up of several “Liquid Engine” Technologies, the player must perform a single roll for all Technologies. If the roll is unsuccessful, all “Liquid Engine” Technologies are destroyed and placed in the player’s reserve.
- If a roll fails, that player may use one or more additional dice from their reserve to make a successful roll. Any additional dice used are discarded.

### NEW SPACE PRICES EXPLODE

The sale price of each Technology in the Public Market increases by  $\$$ 20,000 this round.

- During this round, each Technology sold is worth  $\$$ 60,000.

### PERFECT WEATHER CONDITIONS

The probabilities of a successful launch increase by 1 for this round.

- When launching, increase the result of all dice by 1. This applies to all launch attempts during the round.

### BAD WEATHER CONDITIONS

The probabilities of a successful launch are reduced by 2 for this round.

- When launching, decrease the result of all dice by 2. This applies to all launch attempts during the round.

**EXCEPTIONAL SUPPORT**

Mission Directors who have not used their Specialty immediately receive ~~★~~40,000.

- Players who have not use their Mission Director's Specialty immediately gain ~~★~~40,000.

**RESOURCE RESTRICTION**

The Design action is limited to 1 Engineer per player for this round.

**NEW PATENTS**

All Mission Directors immediately draw 1 R&D Technology card.

- All players draw an R&D Technology card, starting with the Mission Director with the most authority and continuing in descending order. Players add the cards to their reserve.
- If a player already has 9 Technology cards in their reserve, they do not draw a new R&D card.
- If the R&D deck is depleted during this Event, players no longer draw new cards.

**RELUCTANT INVESTORS**

No Investor will award any earnings during this round.

- Players keep completing Investor cards if the objective is met. However, no Credits are acquired.

**ENGINEER TRAINING**

The authority needed to validate the Space Operations Center is reduced by 2 for this round.

- During a launch, reduce the authority needed to reach your chosen destination by 2. This applies to all launch attempts during the round.

**SUPPLY PROBLEM**

No static fire is allowed during this round.

- Launches are still allowed.

**CRUCIAL PERFORMANCE TEST**

The difficulty of static fire is increased.

The die roll must result in a 6 or greater to complete a successful static fire.

- This event only applies to static fires performed during the Administration phase.

**MISSED BID**

No Credits are earned for the Construction of R&D "CubeSat" Technologies during this round.

- "CubeSat" Technologies can be built by players. However, no Credit can be acquired this round.

### **SPACE DEBRIS ALERT**

Rockets with R&D “Solar Sail” Technology or Payload “Space Capsule” Technology are not allowed to launch this round.

- Static fires are still allowed.

### **BURN-OUT**

The number of actions of Mission Directors is reduced to 1 during this round’s Administration phase.

### **POOR MANAGEMENT OF SCHEDULES**

The Construction action is limited to 1 Engineer per player for this round.

### **WAGE EXEMPTION**

The allocation of Mission Directors’ Credits for the quarter is frozen.

All players receive ~~\$~~60,000 during this round’s Administration phase.

### **INACCESSIBLE PREMISES**

All Engineer specialty actions are not allowed during this round.

- Players may not place an Engineer on the Specialty action during this round’s Planning phase.

## **SOLO EVENT CHARACTERISTICS**

### **01. START-UP**

Hiring a Senior Engineer is not allowed until the end of the game.

- It is possible to hire a Senior Engineer at the start of the game, before this Event is revealed.

### **02. INEPTITUDE**

Mission Director Specialty actions are not allowed until the end of the game.

### **03. INTERNAL ETHICS POLICY**

Constructing Technology cards with the characteristic “Nuclear” is not allowed until the end of the game.

- You may not build First Stage and Upper Stage Technologies with the “Nuclear” characteristic. However, you can acquire them and sell them in the Public Market.

### **04. TECHNOLOGICAL BACKWARDNESS**

The Construction of First Stage “Single-Stage-to-Orbit” Technology cards is not allowed until the end of the game.

- You may not build the First Stage “Single-Stage-to-Orbit” Technology. You can, however, acquire it and sell it at the Public Market.

**05. THRUST RATING**

If the total thrust of Technologies built on the Launch Pad is 20 or greater, immediately gain  $\$60,000$ .

Otherwise, discard 1 launching die from your reserve.

- If you do not have an additional die in your reserve to discard (if applicable), this Event has no effect.

**06. CONSTRUCTION DELAY**

If you have not built at least 1 Technology per stage during the game, including R&D, discard one of your Engineer cards.

- If you do not have an Engineer in hand, this Event has no effect.

**07. A-TEAM ENGINEERS**

If the total authority of Engineers in your hand is 30 or greater, gain 1 additional launch die.

**08. DELAY IN THE SCHEDULE**

If you have not completed at least 2 Investor objectives, immediately pay  $\$40,000$  to the Bank.

- This Event does not apply if you do not have Credits. If you have only  $\$20,000$ , you must pay them to the Bank.

**09. HIRING BONUS**

If you have fewer than 3 Engineer cards in hand, immediately pay  $\$40,000$  to the Bank.

If you have more than 3 Engineer cards in hand, immediately gain  $\$40,000$ .

**10. HUMAN RESSOURCES**

If you have less than  $\$60,000$  in reserve, immediately draw an additional Senior Engineer card.

If you have more than  $\$100,000$  in reserve, immediately discard one of your Engineer cards.

**11. WHEN BOREDOM SETS IN...**

If you have not made a successful launch during the game, discard 2 of your Engineer cards.

- This Event does not apply if you do not have Engineers. If you have only one Engineer, discard that card.

**12. LOSS OF INVESTED FUNDS**

Roll a launch die. If the result is 4 or less, immediately pay  $\$40,000$  to the Bank.

- This Event does not apply if you do not have Credits. If you have only  $\$20,000$ , you must pay them to the Bank.
- If the roll fails, you may use one or more additional dice from your reserve to make a successful roll. Any additional dice used are discarded.



### 13. ADAPT TO LAUNCH

Roll a launch die. If the result is 6 or less, the mission changes and you must drop 1 additional Payload “Satellite” Technology card on Mars.

If the result is greater than 6, immediately pay  $\$40,000$  to the Bank.

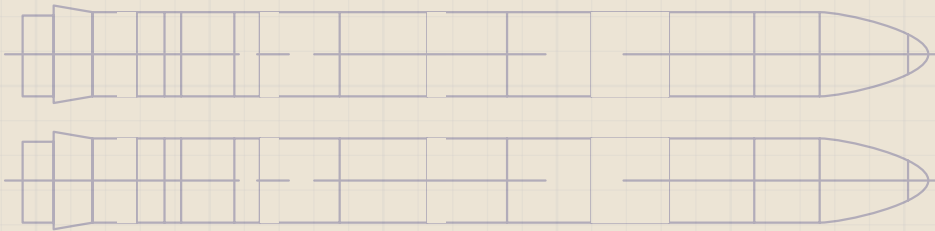
- In the second case, this Event does not apply if you do not have Credits. If you have only  $\$20,000$ , you must pay them to the Bank.

### 14. NEW MISSION

Roll a launch die. If the result is 9 or less, the mission changes and you must drop 1 additional Payload “Cargo” Technology card on Titan.

If the result is greater than 9, immediately pay  $\$60,000$  to the Bank.


- In the second case, this Event does not apply if you do not have Credits. If you have less than  $\$60,000$ , you must pay them to the Bank.





## TECHNOLOGIES CHARACTERISTICS

Some Technologies are only compatible with certain others. It is important to consult their characteristic before building them.


### FIRST STAGE


 **Nuclear Pulse Propulsion:** This Technology is only compatible with other First Stage “Nuclear Pulse Propulsion” Technologies. It is not possible to build other types of First Stage Technologies with this Technology.

 **Laser Propulsion:** This Technology is only compatible with other First Stage “Laser Propulsion” Technologies. It is not possible to build other types of First Stage Technologies with this Technology.


 **Single-Stage-to-Orbit:** This Technology is considered both a First Stage and Upper Stage Technology at the same time. It is not possible to build other types of Technologies First stage or Upper Stage - with this Technology. The “Single-Stage-to-Orbit” cannot be combined, **only 1 card of the “Single-Stage-to-Orbit” can be built per rocket.**

## UPPER STAGE

 **Ion Thruster:** This Technology is only compatible with other Upper Stage “Ion Thruster” Technologies. It is not possible to build other types of Upper Stage Technologies with this Technology.


 **Nuclear Rocket:** These Technologies are only compatible with other Upper Stage “Nuclear Rocket” Technologies. It is not possible to build other types of Upper Stage Technologies with these Technologies.

## PAYLOAD

 **Manned Flight:** Adds a section compatible for the number of astronauts indicated on the icon. It is possible to combine several Technologies with the characteristic “Manned Flight” on the same rocket.


**Note:** After a successful launch, all of a rocket’s Payload Technology cards are placed on the Space Operations Center board in the player’s dedicated slot.

## R&D

 **Additional Seat:** This Technology allows you to add 1 astronaut to the seats already available on your rocket. An “Additional Seat” Technology can be built even if no “Manned Flight” Technology has yet been built on the rocket. The “Additional Seat” characteristic only applies during a launch and only if at least one Payload Technology with the “Manned Flight” characteristic is also built on the rocket.


Players may not combine several “Additional Seat” Technologies on the same Payload Technology with the “Manned Flight” characteristic.


**Note:** After a successful launch, a rocket’s R&D “Additional Seat” Technologies are placed on the Space Operations Center board on the player’s dedicated slot.


 **Aerospike Engine:** This Technology reduce the total mass of the rocket by 1 or 2 but only if it is equipped with at least a First Stage “Liquid Engine” Technology.

“Aerospike Engine” Technology can be built even if no First Stage “Liquid Engine” Technology has yet been built on the rocket. The “Aerospike Engine” characteristic will only apply during a launch if at least one First Stage “Liquid Engine” Technology is also built on the rocket.

Players may not combine several “Aerospike Engine” Technologies on the same First Stage “Liquid Engine” Technology.

 **Heavy Version:** This Technology multiplies the total thrust of the First Stage Technologies by 2. Only one “Heavy Version” can be built per rocket.


 **Reusable Launch System:** If a player has built the R&D “Reusable Launch System” Technology on their rocket, their First Stage Technologies are not returned to the reserve after a successful launch. Instead, that player keeps all of their First Stage Technologies built on his Launch Pad board.

 **Pressurization:** This Technology makes a Payload “Cargo” Technology habitable for 2 astronauts.

A “Pressurization” Technology can be built even if a Payload “Cargo” Technology has not yet been built on the rocket. The “Pressurization” characteristic will only apply during a launch if at least one Payload “Cargo” Technology is also built on the rocket.

Players may not combine several “Pressurization” Technologies on the same “Cargo” Payload Technology.

**Note:** After a successful launch, a rocket’s R&D “Pressurization” Technologies are placed on the Space Operations Center board on the player’s dedicated slot.

 **CubeSat:** “CubeSats” are Technologies that do not cost Credits during Construction, instead, they provide Credits to the player. The Credits stated in the characteristic box are immediately acquired by the player during the Construction of the “CubeSat”.

**Note:** After a successful launch, a rocket’s R&D “CubeSat” Technologies are placed on the Space Operations Center board on the player’s dedicated slot.

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