ONE SMALL STEP



ACADEMY GAMES

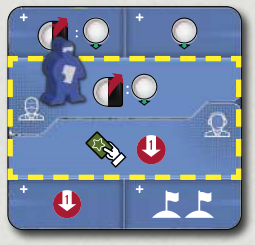
GAME OVERVIEW

Play as either the **USA** or **USSR** space agencies on a **Team** of one or two players. Compete against the opposing nation's Team to develop your space program, launch missions, and be the first to land a man on the Moon.

Each Team has four Workers of two different types: **Administrators and Engineers**.



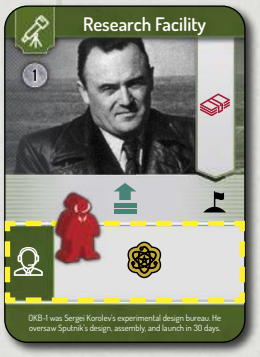
Teams alternate placing Workers on either an **Earth Space** or a **Card Space** to gain Resources, Bonus Tiles, and more.



Earth Space

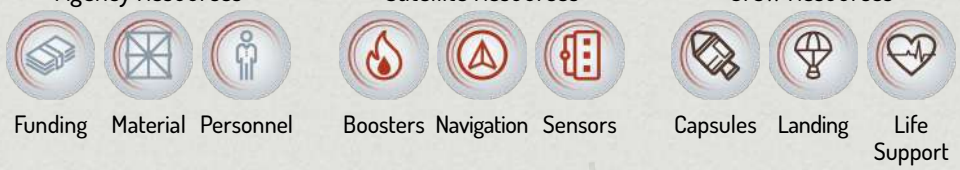
Earth Spaces have different worker placement effects that depend on which type of worker you place.

Card Spaces require the placement of a specific type of worker that grants an immediate bonus and drafts the card into your hand for future development.



Card Space

Collect nine different Resources split into three groups.



Use Agency Resources gained from placing workers to purchase cards you have drafted. Purchasing cards will most often gain you Satellite and Crew Resources.

Use Satellite Resources to launch Satellite Missions into Earth's orbit to increase your Agency's knowledge and upgrade your game engine.

Launch Crew Missions with Crew Resources to advance along the Moon Path for Victory Points and greater rewards.

The first Team to reach the end of the Moon Path lands on the Moon and triggers the end of the game. The Team with the most VP represents the nation that did the most to progress humanity's knowledge for the future.

HOW TO USE THE RULEBOOK

Set up the beginner game by following the instructions on pages 3 and 4 before reading the rules.

You will only need to read the rules up to page 18 to play the beginner game. You should wait to read the rest of the rules until after you have played your first game.

Some rules differ between the beginner and advanced games.

New Staff: Beginner rules are shown in a gray box.

Veteran Staff: Advanced rules are shown in a white box and replace the beginner rules after your first game.

Key Terms — Most rules begin with a bold key term to make it easier to reference the rules while you play.

Online Resources — Go to www.AcademyGames.com for the latest rulebook, extra summary sheets, card explanations, and FAQ.

EXAMPLE BOXES

Gameplay examples are shown in example boxes like this one.

DESIGNER'S NOTE

Designer's notes provide insight about rules and gameplay.

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Special thanks to all the people who supported the Kickstarter!

Component List
1 Board
1 Beginner Game Overlay
3 Resource Dice (gray, red, brown)
2 Agency Boards (USA, USSR)
4 Cubes (2 red, 2 blue)
1 Rulebook
2 Summary Sheet
4 red Meeples (2 Eng., 2 Admin)
4 blue Meeples (2 Eng., 2 Admin)
90 Resource Tokens (10 of each)
12 Satellite Markers
12 Crew Markers
9 Advancement Tokens
12 Crew Mission Cards (6 USA, 6 USSR)
20 Satellite Mission Cards
46 Development Cards
19 Hazard Cards
14 Advancement Cards
54 Permanent Tokens (6 of each)

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SETUP

1 Board

New Staff: Place the Board and then place the Beginner Overlay over the Earth and its Action Spaces.

Veteran Staff: Place the Board without the Beginner Overlay.



Beginner Overlay

2 Upgrade Markers

New Staff: Place the Crew Markers in a pile next to the Board. Satellite Markers are not used in the beginner game.

Veteran Staff: Place Satellite Markers, either side up, on the ten Satellite Action Upgrades in the top left and bottom left of the five Earth Spaces.

Place Crew Markers, either side up, on the ten Crew Action Upgrades in the top right and bottom right of the five Earth Spaces.

Place any remaining Upgrade Markers in a pile next to the Board.



Crew Markers



Satellite Markers

3 Satellite and Media Bonus Tiles

Separately shuffle the brown Satellite Bonus Tiles and the blue Media Bonus Tiles and place them in face down stacks onto the Board spaces with matching symbols.

4 Crew Bonus Tiles

Place the 7 VP Crew Bonus Tile on the last space of the Moon Path.

Shuffle the rest of the Crew Bonus Tiles and place one face down on each of the five remaining Moon Path Spaces.

Stack the remaining Crew Bonus Tiles next to the Board.

5 Event Deck

Shuffle the Event Cards into three separate Era decks based on the Era Number shown on the back of the cards.

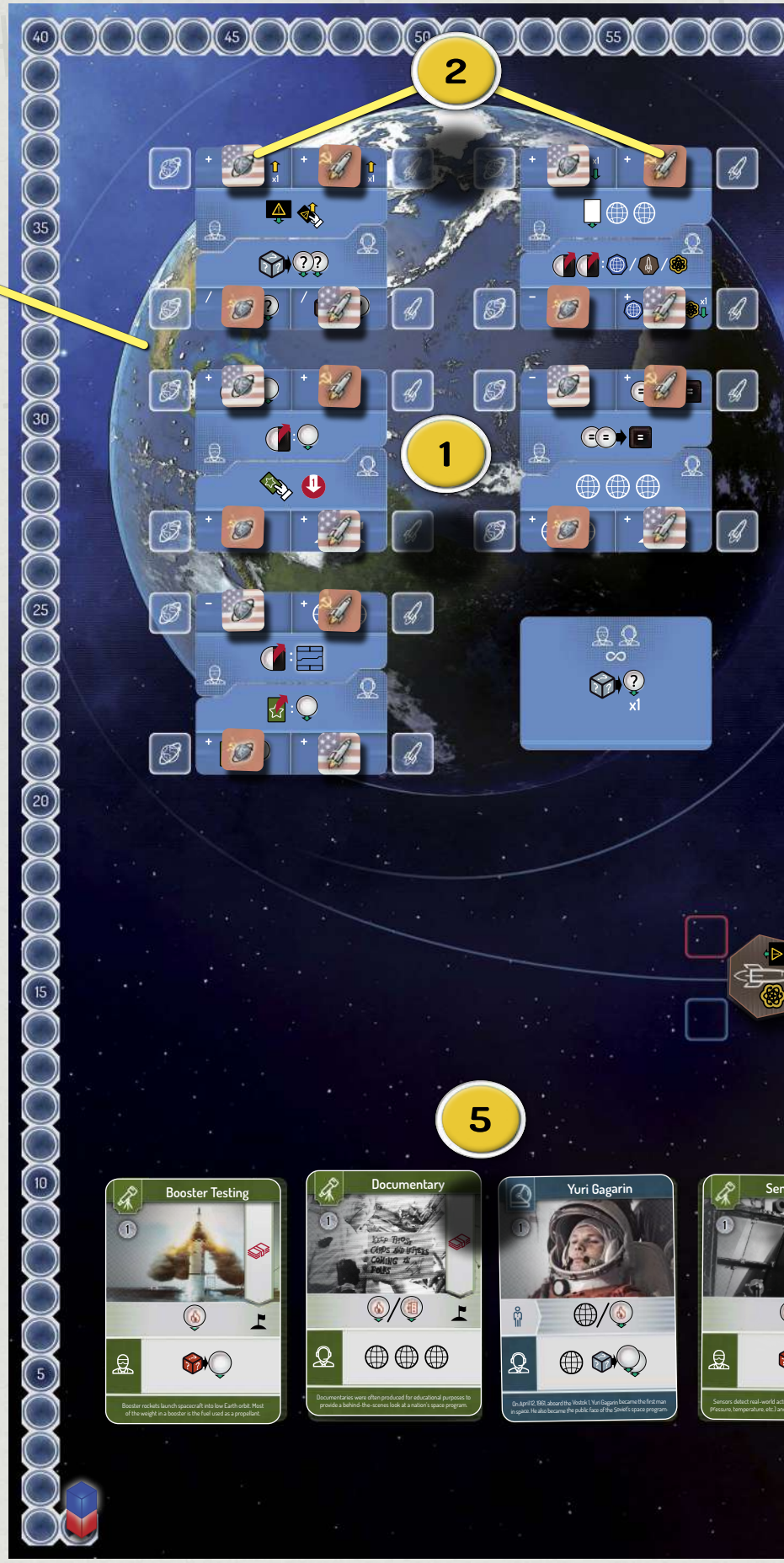
Place the Era 2 Cards on top of the Era 3 Cards and the Era 1 Cards on top of the Era 2 Cards to form the Event Deck. Place the Event Deck on its space on the Board.

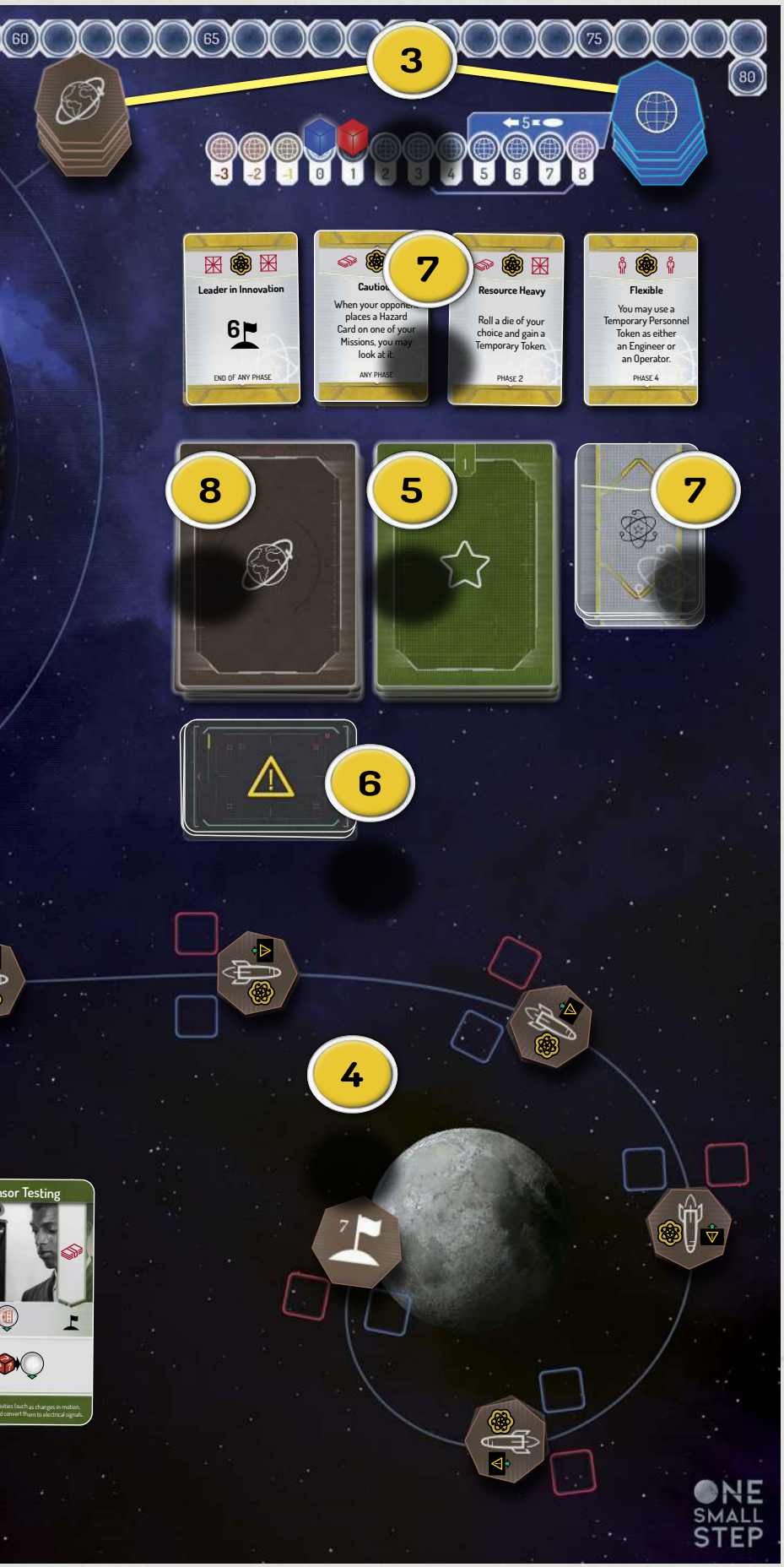
Draw 4 Event Cards and place them on the four Card Draft Spaces.



6 Hazard Deck

Shuffle and place the Hazard Deck on its space on the Board.





7 **Advancement Deck**

New Staff: Do not use these cards and ignore all reference to them during the beginner game.

Veteran Staff: Shuffle the Advancement Deck and place it on its space on the Board.

Draw 4 Advancement Cards and place them on the four Available Advancement Spaces. Place the Advancement Tokens next to the Board.

8 **Satellite Mission Deck**

Remove the 4 Starting Satellite Mission Cards and then shuffle and place the Satellite Mission Deck on its space on the Board.

Starting Satellite Missions have a key symbol on their back



9 **Agency Boards and Team Pieces**

Each Team chooses a nation to play, red USSR or blue USA, and takes the following:

- Nation's **Agency Board**
- **2 Engineer and 2 Administrator Workers**. If a Team has 2 players, choose one to play as the Engineer Department and one to play as the Administrator Department. You will play as both the Engineer and Administrator Departments if you are the only one on your Team.
- **Crew Mission Deck** specific to their nation, as shown on the backs. Shuffle and place the cards face down near your Agency Board.
- **VP Marker.** Place on the first space of the VP Track.
- **Media cube.** Place USA on 0 and USSR on 1.
- **Starting Satellite Missions.** Randomly give 2 of the 4 Starting Satellite Missions to each Team and randomly place one on T-1 and one on T-2 of their Agency Board.



10 **Resource Tokens**

Place the Resource tokens into separate supply piles near the Board. Place the 3 Resource Dice next to the Resources.

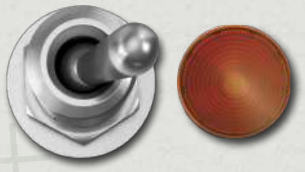
The Engineer and Administrator Departments on a Team each choose one Agency Resource (Funding, Material, or Personnel) that their Team will start the game with, so that each Team starts with 2 Agency Resources.

TEAMS & DEPARTMENTS

Teams — Play as the US Team or the USSR Team.

Department — Each Team consists of two Departments - Engineer Department and Administrator Department.

Workers — The Engineer Department controls two Engineer Workers; Administrator Department controls two Administrator Workers.



Players — A Team can be made of one or two players:

Two Players — Each player on the Team controls one Department and its two Workers.

One Player — A single player controls both Departments and all four Workers.

Team Disagreement — If there is ever a disagreement between teammates on what course of action to take, the opposing Team chooses for them.

DESIGNER'S NOTE

The rules refer to Departments instead of players so that they are interpreted correctly whether you are playing with one or two players on a Team.

INITIATIVE

Media Initiative — The Team with the highest value on the Media Track has Initiative.

Gaining Media — The Gain Media symbol moves your Team's Media cube up one space on the Media Track. If a number is shown before the Media symbol, gain that number of Media. More information about gaining Media can be found on page 17.

Tied Media —The Team moving their Media cube should place it on top of the other Team's cube if they will occupy the same space. The cube on top will have Initiative.

Phase Initiative — Check to see which Team has Initiative at the beginning of each Phase. That Team goes first in that Phase.

Initiative can change from Phase to Phase in a Round, but does not change within a Phase when the Teams' Media values change.

Timing Disputes — If there is ever a dispute about the order in which something happens (e.g., who draws from a deck first), the Team with Initiative decides the order.

DESIGNER'S NOTE

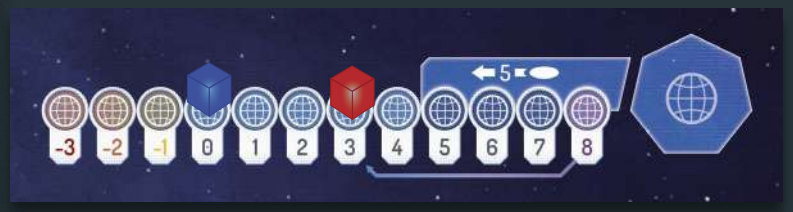
The USSR start the game with Initiative. Their Media score is higher because they just launched Sputnik, the first Earth orbiting satellite.

DESIGNER'S NOTE

The Media Track represents how supportive your country's population and government are of your space agency's ventures. Propaganda, public relations campaigns, and successful missions will increase your Media.

MEDIA INITIATIVE EXAMPLE

The USSR starts the Phase with more Media and so has Initiative.

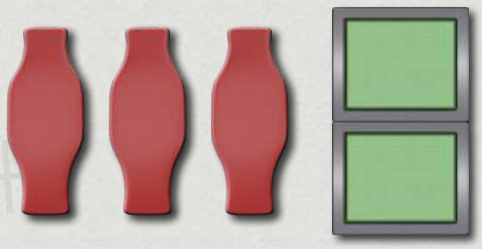


During the Phase, the US gains a Media score equal to the USSR, so they place their Media cube on top of the USSR Media cube.



The USSR still has Initiative for the rest of the Phase.

At the start of the next Phase, the US gains Initiative.



AGENCY BOARDS

Agency Board — Each Team has one Agency Board shared by both Departments.

Storage — All Workers, tokens, tiles, and cards are stored on or near your Team's Agency Board as shown in the example below.

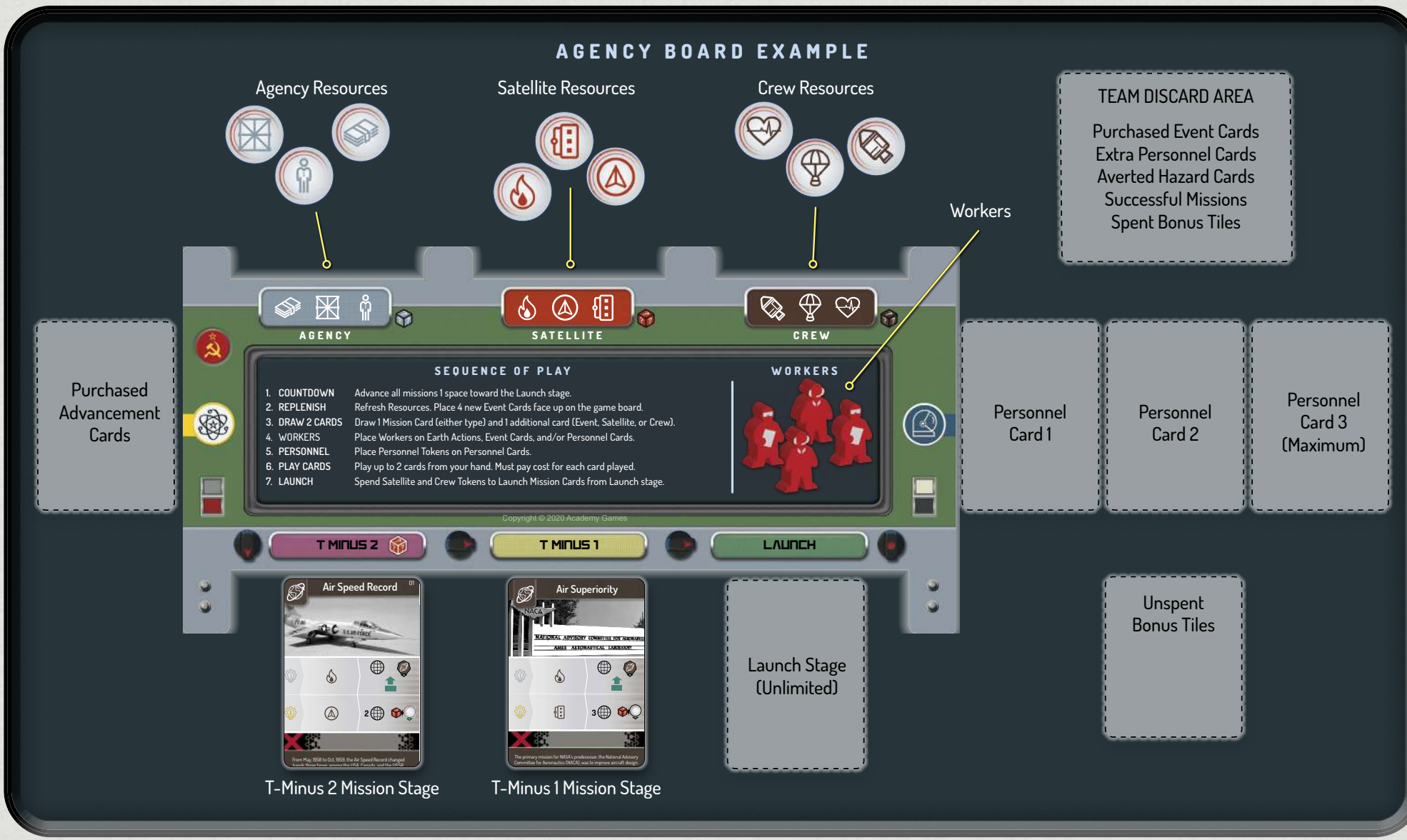
Storage Limit —There is no limit to how many components you can store except that you may only have three Personnel Cards in play at one time.

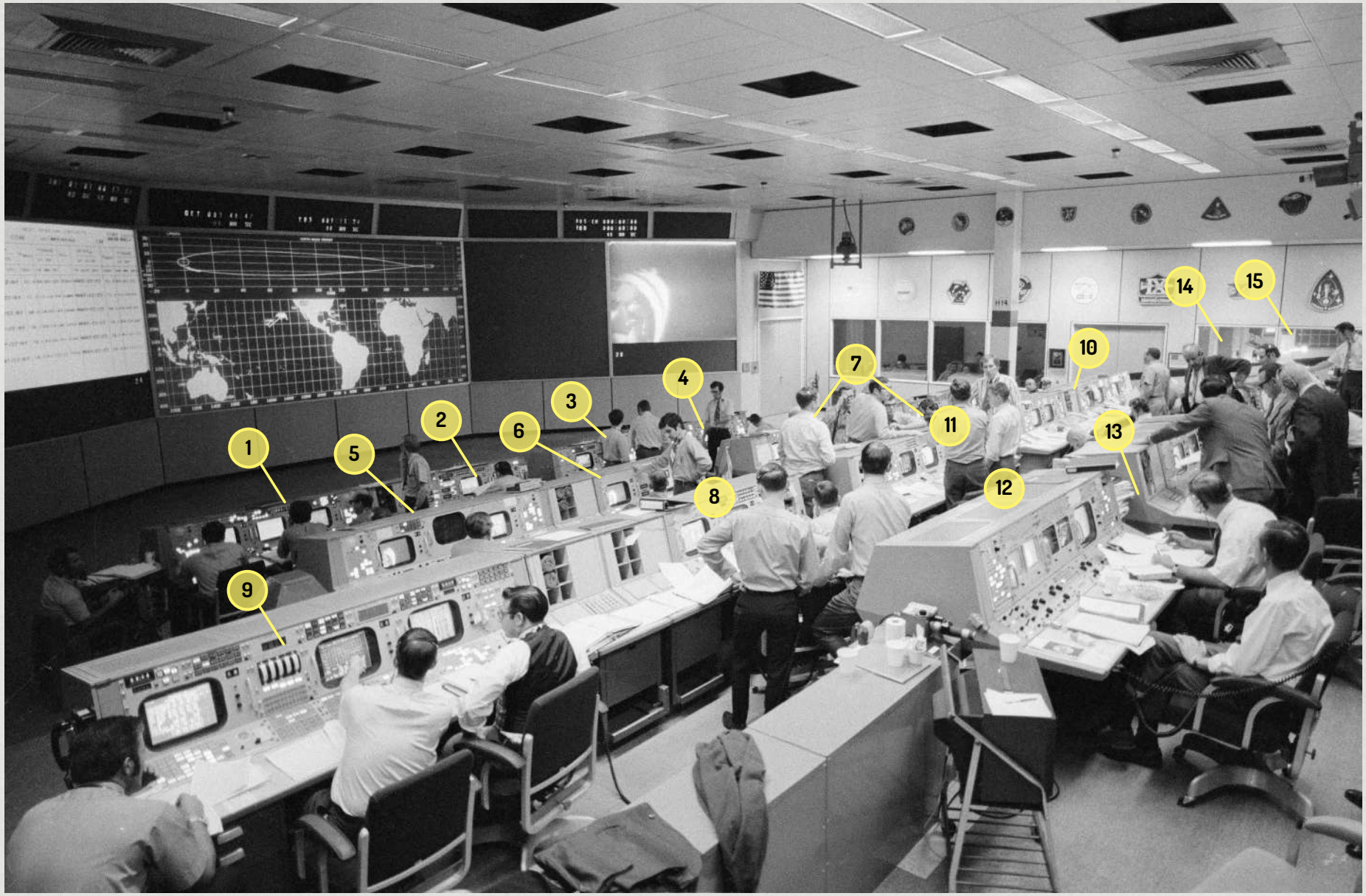
Team Discard Area — Each Team has its own Discard Area for its cards and tiles.

Game Discard Area — Cards and tiles will sometimes be discarded out of the game into the Game Discard Area in the game box.



AGENCY BOARD EXAMPLE





DESIGNER'S NOTE

Flight controller positions in Mission Control, numbered above from Apollo 14:

1 **Booster Systems Engineer.** Responsible for the three Saturn stages. During lunar surface activity, an Experiments Officer used this station to direct scientific activities and pass information to/from the science team.

2 **Retrofire Officer.** Continuously tracked abort and return-to-Earth options.

3 **Flight Dynamics Officer**. Monitored trajectories, planned major spacecraft maneuvers, and managed on-board propulsion systems.

4 **Guidance Officer.** Watched CSM and LM computers and the abort guidance system.

5 **Flight Surgeon.** Kept an eye on flight crew condition.

6 **Spacecraft Communicator.** An Astronaut and member of the support crew who sent up the Flight Director's instructions. (Usually called CapCom)

7 **CSM and LM systems:** Guidance, navigation hardware, electrical systems, environmental systems, and communications systems.

8 **Flight Director**. The team leader.

9 **Operations and Procedures Officer.** Kept the team working together.

10 **Network Controller.** Coordinated worldwide communications links.

11 **Flight Activities Officer.** Tracked flight crew activities and mission timeline.

12 **Public Affairs Officer.** The radio and TV voice of Mission Control.

13 **Director of Flight Operations.** Managed flight controllers in Mission Control.

14 **Mission Director.** From NASA Headquarters, oversaw a specific mission.

15 **Department of Defense.** A representative from the Dept. of Defense.

SEQUENCE OF PLAY

Rounds — One Small Step is played over a number of Rounds.

Phases — Each Round is made up of 7 Phases that are summarized on your Agency Board.

Turns — In a Phase, each Team will take a Turn, in Initiative order, to complete the Phase before moving on to the next Phase.

Alternating Turns — Some Phases will require the Teams to alternate multiple Turns until both Teams are finished with the Phase. The Team with Initiative goes first.

Game End — The game ends at the end of the Round during which at least one Team lands a man on the Moon.

PHASE 1: COUNTDOWN

MISSION CARDS

Mission Cards represent experiments or ventures that are either categorized as unmanned Satellite Missions or manned Crewed Missions.

Launch Queue — Each Agency Board has a Launch Queue at the bottom of the Board made up of three Stages: T-Minus 2, T-Minus 1, and Launch.

Placing Missions — When you draw a Mission, immediately place it on either the T-Minus 2 or T-Minus 1 Stage.

T-Minus 2 Bonus — When you place a Mission on the T-Minus 2 Stage, you may immediately roll the red Satellite Die and gain the resulting Resource. This is shown by the red die symbol next to the T-Minus 2 title.

Unlimited Missions — There is no limit to how many Missions can be placed on each Stage.

COMPLETING PHASE 1

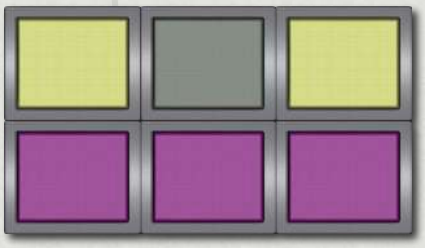
Advance Missions — Move each Mission on your Agency Board one Stage to the right in the following order:

1. T-Minus 1 Missions move to the Launch Stage.
2. T-Minus 2 Missions move to the T-Minus 1 Stage.



DESIGNER'S NOTE

You will advance all Missions at the start of the Round so that you can see what will be Launching at the end of the Round. Plan your Turns in the other Phases accordingly.



PHASE 2: REPLENISH

RESOURCES

Resource Tokens — There are nine different Resources in the game that are represented by tokens.

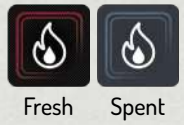
Resource Groups — Each Resource is part of one of three different groups.



Token Types — There are two types of tokens for each Resource.

Temporary Resources — These white circular tokens are discarded back to the supply when they are spent.

Permanent Resources — The square tokens remain on your Team's Agency Board when they are spent. They are flipped from their black Fresh side to their gray Spent side when they are spent.



Gaining Resources — When you gain a Temporary or Permanent Resource Token, store it at the top of your Agency Board in the area reserved for that Resource's group. Place Permanent Resources so that their black Fresh side is face up. They can be used right away.

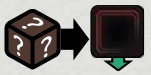
Resource Dice — Each group of Resources has a corresponding Resource Die. Actions will often allow you to roll a die to gain Temporary or Permanent Resources.



Rolling Dice — Roll a die when an Action pictures it and gain the resulting Resources. The Action will indicate whether these should be Temporary or Permanent Resources. The Agency Die has 2 Resources on each face. Gain both Agency Resources shown when rolling the Agency Die, unless otherwise noted.



This Action Symbol indicates that you roll a red die to gain a **Temporary** Resource.



This Action Symbol indicates that you roll a brown die to gain a **Permanent** Resource.

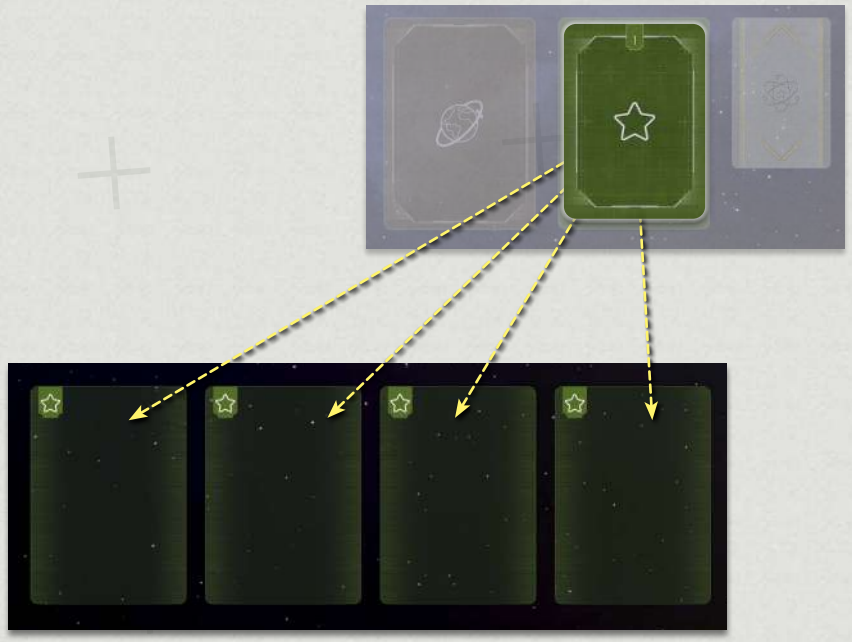
Upgrading Resources — The Upgrade symbol allows you to spend a Temporary Resource to gain a matching Permanent Resource.



Upgrade Limit — You cannot Upgrade a Temporary Resource in the same Turn in which it was gained. You can upgrade it in a future Turn within the same Phase.

COMPLETING PHASE 2

Replenish Event Cards — Draw four Event Cards from the Event Card Deck and place them face up on the four Card Draft Spaces.



Refresh Resources — Flip all of your square Permanent Resources from their gray Spent side to their black Fresh side.



First Round — Event Cards were placed on the Draft Spaces during Setup, so no new Event Cards are drawn during this Phase on the first Round.

RESOURCE DIE EXAMPLES



The US player rolls the gray Agency Resource Die. The result shows the Funding and the Personnel symbol. He gains one Temporary Funding Resource and one Temporary Personnel Resource, since the die points to a Temporary Token.



The USSR player rolls the brown Crew Resource Die. The result shows the Landing symbol. She gains one Permanent Landing Resource since the die points to a Permanent Token.

RESOURCE UPGRADE EXAMPLES

The US player is taking their Turn and performs an Action that gains him a Temporary Funding Resource and allows him to Upgrade a Temporary Resource to a Permanent Resource.

He cannot Upgrade the Funding Resource since he gained it that Turn, so he Upgrades a Booster Resource that he gained in a previous Turn. He spends the Temporary Booster Resource and gains a Permanent Booster Resource. The Booster Resource starts on its black Fresh side and can be used right away.

PHASE 3: DRAW CARDS

COMPLETING PHASE 3

Draw Cards — Each Department on your Team draws one card. Either Department can draw first and the Team can look at the card before the other Department draws.

Simultaneous Draw — Teams do not take turns drawing cards but complete this phase simultaneously. Any disputes are resolved by the Initiative Team though.

Administrator Department Draw — Draw one of the following cards:

- **Satellite Mission Card** from the shared Satellite Mission Deck.
- **Crewed Mission Card** from your Team's Crewed Mission Deck.



Engineer Department Draw — Draw one of the following cards:

- **Satellite Mission Card** from the shared Satellite Mission Deck.
- **Crewed Mission Card** from your Team's Crewed Mission Deck.
- **Event Card** from the shared Event Deck.



CARD DRAW EXAMPLE

The US Administrator Department chooses to draw a Satellite Mission Card from the shared deck which he immediately places face up in the T-1 Stage of the US Agency Board.

At the same time, the USSR Engineer Department chooses to draw a Crew Mission Card from the USSR's deck which she immediately places face up in the T-1 Stage of the USSR Agency Board.

The US Engineer Department then chooses to draw an Event Card and places it in her Team's hand.

The USSR Administrator Department chooses to draw a Satellite Mission Card from the shared deck which he immediately places face up in the T-2 Stage of the USSR Agency Board. This allows him to roll the red Satellite Die and gain the resulting temporary Satellite Resource Token.

US Administrator | **US Engineer** | **USSR Engineer** | **USSR Administrator**



EVENT CARDS

Event Cards are events, experiments, technologies, buildings, and people that your Agency can utilize.

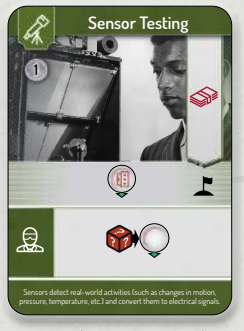
Event Card Types — There are two types of Event Cards:

Development Cards — Have a green front and a telescope symbol in the top left corner.

Personnel Cards — Have a blue front and an astronaut helmet symbol in the top left corner.



Event Card Back

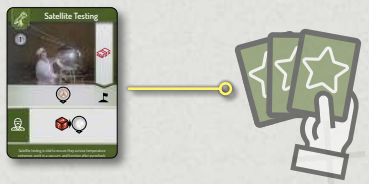


Development Card



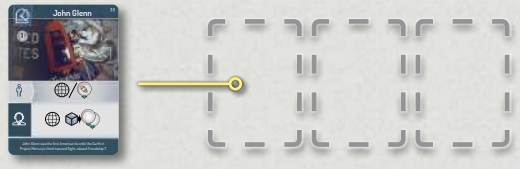
Personnel Card

Team Hand — Place a Development Card into your Team's hand when you gain it. Both Departments share the same hand.



Unlimited Hand — You may hold any number of Development Cards in your hand.

Gaining Personnel Cards — Place Personnel Cards face up to the right of your Agency Board next to the Personnel symbol.



Personnel Limit — You can only have three face up Personnel Cards next to your Agency Board. If you gain a fourth, you choose which three to keep. Place the remaining card in your Team's Discard Area.

PHASE 4: PLACING WORKERS

COMPLETING PHASE 4

Turns — Teams alternate taking Turns placing a Worker until all Workers have been placed.

Choosing Worker — When it is your Turn, your Team must decide which Department will place one of their Workers.

Placing Worker — Place one of your Workers from your Agency Board on either an Earth Space or a Card Space. Only a Card Space on a Card Draft Space of the Board may have a Worker placed on them.



Earth Space's Engineer and Admin Actions



Personnel Event Card Space



Development Event Card Space

Retrieve Workers — After all Workers have been placed, retrieve all Workers and place them back on your Agency Board.

Draft Cards — Gain the Event or Personnel Card when you retrieve a Worker that was placed on the card.

Undraft Cards — Cards that did not have a Worker placed on them are shuffled and placed face down on the bottom of the Event Deck at the end of the Phase.

DESIGNER'S NOTE

When you place a Worker on an Earth Space, you are not only blocking the other Team from using the Space, but you are also preventing your Team's other Department from using the Earth Space's alternative Worker Action.

WORKER SPACES

Workers — Administrator and Engineer Workers each have a Unique graphic on their face. They also each have a matching symbol that is used to identify their use on the board and cards.



Engineer Symbol



Engineer Workers

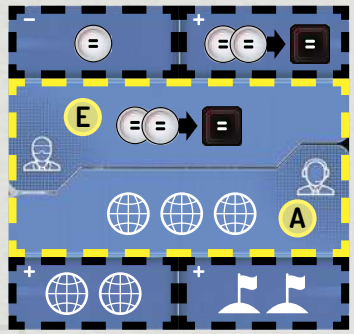


Administrator Symbol



Administrator Workers

Earth Spaces (yellow outline) **—** Each Earth Space has two Worker Actions:

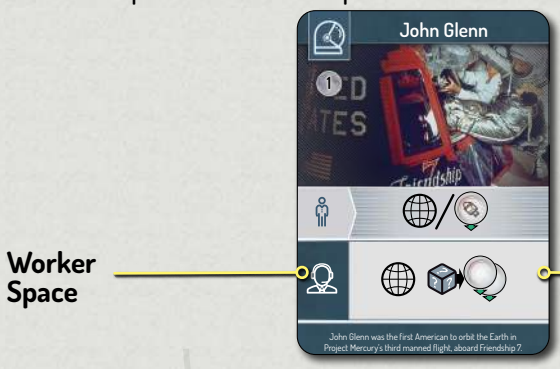


E **Top Engineer Action —** Use the top Engineer Worker Action if an Engineer Worker is placed on the Space.

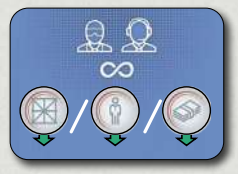
A **Bottom Administrator Action —** Use the bottom Administrator Worker Action if an Administrator Worker is placed on the Space.

Earth Upgrades (black outlines) **—** Each Earth Worker Action has two Upgrades. Upgrades are introduced in the Upgrade Section on page 19 and are not included on the Beginner Overlay.

Card Spaces — Only a Worker that matches the Card Space's worker symbol may be placed on the Space and use the Space's Worker Action.



Worker Limit — A Worker may not be placed on an Earth or Card Space if it is occupied by another Worker.



Unlimited Space — An Earth Space with an infinity sign can have an unlimited number of Workers placed on it. It has the same effect for Engineers and Administrators.

Worker Action Effect — Gain the effects of a Worker Action immediately when the Worker is placed. The effects of most Worker Actions are shown by symbols that are explained on the back cover.

Action Cost — Some Worker Actions have a cost shown before a colon (:) or an arrow that must be paid before the Action's effects shown following the colon (:) or arrow can be used.

Summary Sheet — Each Team has a summary sheet that explains each Earth Action's symbols for the beginner game on one side and the advanced game on the other. The advanced side also explains each Action's two Upgrades.

Use your summary sheet to plan your Team's Worker placement in secret.

WORKER PLACEMENT EXAMPLE

This example uses the Beginner Overlay and the four cards shown below. It is the first Round of the game and the USSR has Initiative this Phase, so they take the first Turn placing a Worker. A full description of each Earth Space's effects are described on the summary sheet.

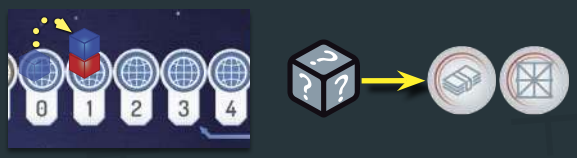
TURN 1 - USSR places an Administrator on Earth Space 1

The Worker uses the Space's Administrator Action on the bottom. The USSR chooses to roll the red Satellite Resource Die and gain a Temporary Navigation Resource Token. Note that the Earth Space's Action would be different if an Engineer had been placed.



TURN 2 - US places an Administrator on Event Card "John Glenn"

The "John Glenn" Event Card allows an Administrator Worker to increase their Team's Media value by 1 and to roll the gray Agency Resource Die. The US gains 1 Temporary Funding Resource and 1 Temporary Materials Resource from the die. Note that only an Administrator Worker can be placed on this card.



TURN 3 - USSR places an Engineer on Event Card "Booster Testing"

The "Booster Testing" Event Card allows an Engineer Worker to roll the red Satellite Resource Die. The USSR gains a Temporary Booster Resource Token from the die. Note that the Worker could not be placed on Earth Space 1 or the "John Glenn" Event Card since they already have Workers on them.



TURN 4 - US places an Engineer on Earth Space 2

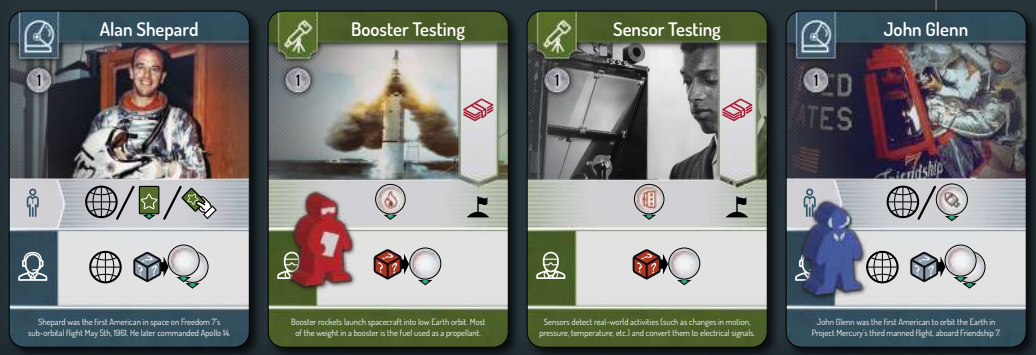
The Worker uses the Space's Engineer Action at the top. The US spends 1 Temporary Funding Resource and 1 Temporary Materials Resource to choose to gain 2 Temporary Booster Resources.



TURN 5 - USSR places an Administrator on Earth Space 3

The Worker uses the Space's Administrator Action at the bottom. The USSR discards an Event Card from their hand to gain a Temporary Resource Token of their choice. They choose to gain a Temporary Life Support Resource Token.





TURN 6 - US places an Engineer on Earth Space 5

The Worker uses the Space's Engineer Action at the top. The US discards 2 Temporary Booster Resources to gain 1 Permanent Booster Resource. Note that the Permanent Resource starts on its black Fresh side.



TURN 7 - USSR places an Engineer on Earth Space 6

The Worker uses the Space to gain 1 Temporary Agency Resource of their choice. They choose to gain a Temporary Funding Resource. Note that the Action is the same for both Engineers and Administrators.



TURN 8 - US places an Administrator on Earth Space 6

The Worker uses the Space to gain 1 Temporary Agency Resource of their choice. They choose to gain a Temporary Personnel Resource. Note that the Worker can be placed on this Unlimited Space, even though a Worker is already on it.



End of Phase

Both Teams retrieve their Workers. The USSR places the "Booster Testing" card into their hand and the US places the "John Glenn" card face up to the right of their Agency Board. The "Alan Shepard" and "Sensor Testing" cards are shuffled and placed face down on the bottom of the Event Deck.



PHASE 5: PERSONNEL

COMPLETING PHASE 5

Use Personnel — Teams take Turns using one of the Personnel Cards beside their boards.

Each Personnel Card can be used once each Round.

Optional Use — You do not have to use a Personnel Card in a Round.

Reusable Personnel — Personnel Cards remain after their Personnel Action is used and can be used again in future Rounds.

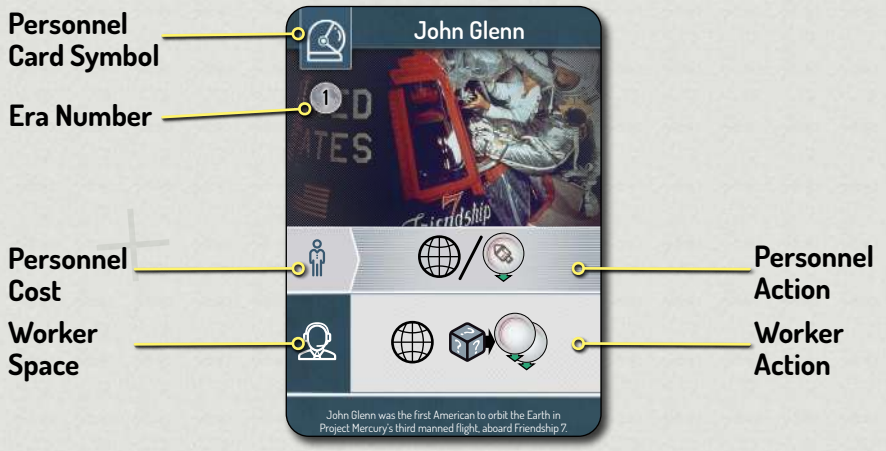
Personnel Cost — Spend the pictured Resource cost to use the card's Personnel Action

Personnel Action Effects — The Personnel Action's effects are shown directly to the right of the cost and are carried out immediately when the cost is paid.

DESIGNER'S NOTE

After a Personnel Card is drafted and placed beside your Agency Board, you will only use the card's Personnel Action. The card's Worker Action cannot be used and has no effect after the card is drafted.

PERSONNEL CARDS



PERSONNEL CARD EXAMPLE

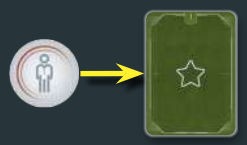
TURN 1 - US uses "John Glenn" 1

The US has Initiative this Phase. They spend 1 Permanent Personnel Resource and chooses to gain 1 Temporary Capsule Resource. The Permanent Personnel Resource is flipped to its gray Spent side.



TURN 2 - USSR uses "Alan Shepard" 2

The USSR spends 1 Temporary Personnel Resource and chooses to draw an Event Card into their Team's hand.



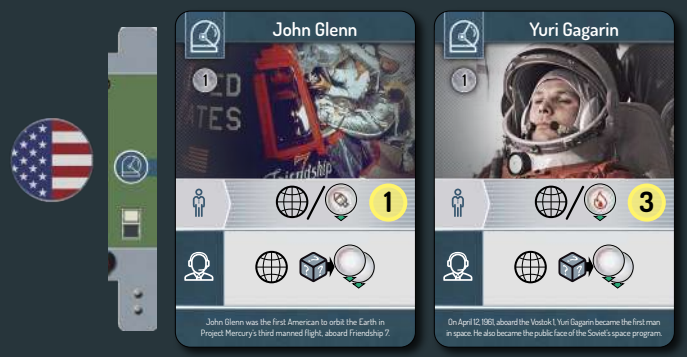
TURN 3 - US uses "Yuri Gagarin" 3

The US spends 1 Temporary Personnel Resource and chooses to increase their Media value by 1.



End of Phase

The USSR has no more Personnel Resources to spend, so they do not get to use "Ed White" this Round. The US has no more unused Personnel Cards, so the Phase ends.





PHASE 6: PLAY CARDS

COMPLETING PHASE 6

Purchase Developments — Each Department may choose any one Development Card to play from the Team's hand.

Development Cost — Spend the pictured Resource cost to play the Development Card.

Development Cards usually cost between one and three Funding and/or Material Resources.

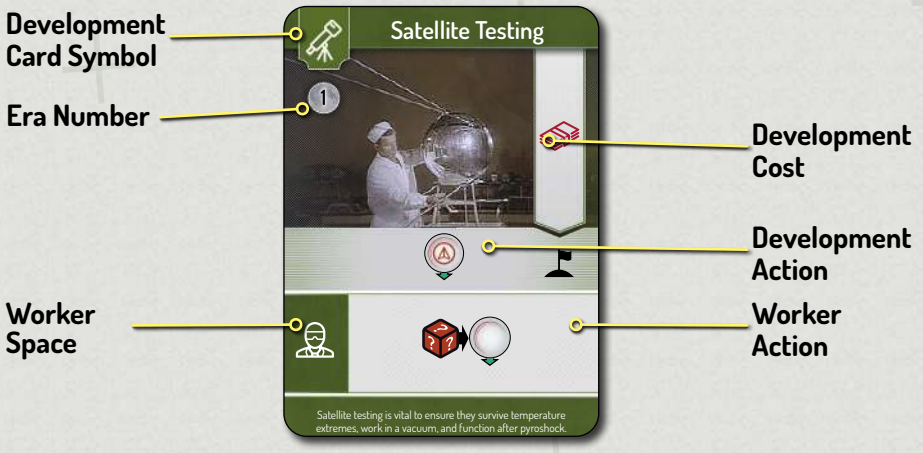
Development Action — The effects of playing a Development Card are carried out immediately when the card's cost is paid.

Discard Developments — Discard a Development Card to your Team Discard after it is played.

DESIGNER'S NOTE

Development and Personnel Cards both have two uses: the Worker Action that is gained during Phase 4 when a Worker is placed on the card and the Personnel and Development Actions that are used in Phases 5 and 6.

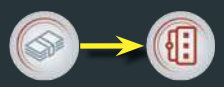
DEVELOPMENT CARDS



PLAY CARD EXAMPLE

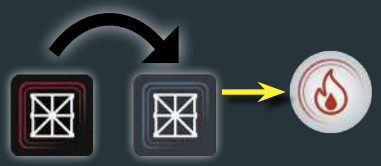
US Engineer plays "PR Tour"

The Engineer spends 1 Temporary Funding Resource Development Cost to gain a Temporary Sensor Resource. Note that they could have chosen to gain a Navigation Resource instead. The US also gains 1 Victory Point.



US Administrator plays "Booster Testing"

The Administrator spends 1 Permanent Materials Resource Development Cost to gain a Temporary Booster Resource. The US also gains 1 Victory Point.



USSR Engineer plays "Satellite Testing"

The Engineer spends 1 Temporary Funding Resource Development Cost to gain a Temporary Navigation Resource. The USSR also gains 1 Victory Point.



USSR Administrator plays no card

The Administrator chooses not to play a card.







PHASE 7: LAUNCH MISSIONS

COMPLETING PHASE 7

Launching Turns — Teams alternate taking Turns launching one Mission from the Launch Stage until all Missions at the Launch Stage have been launched.

Launching Order — Launch your Missions at the Launch Stage in any order you wish.

Launch Sequence — Perform the following steps to launch a Mission:

1. **Attempt Minor Success** — Pay all of the Resources of the Minor Success Cost if you can.

   Mission Failure ✕ **—** The Mission fails if you do not have all of the Resources necessary to spend for a Minor Success.

   Any Resources you do have for a failed Minor Success are not spent, but you do lose the Media and/or Victory Points as indicated by the Failure Penalty.

   The launch ends and you skip steps 2 and 3.

2. **Attempt Major Success** — You may **choose** to spend all of the Resources of the Major Success Cost to achieve a Major Success.

   There is no penalty for not achieving a Major Success.

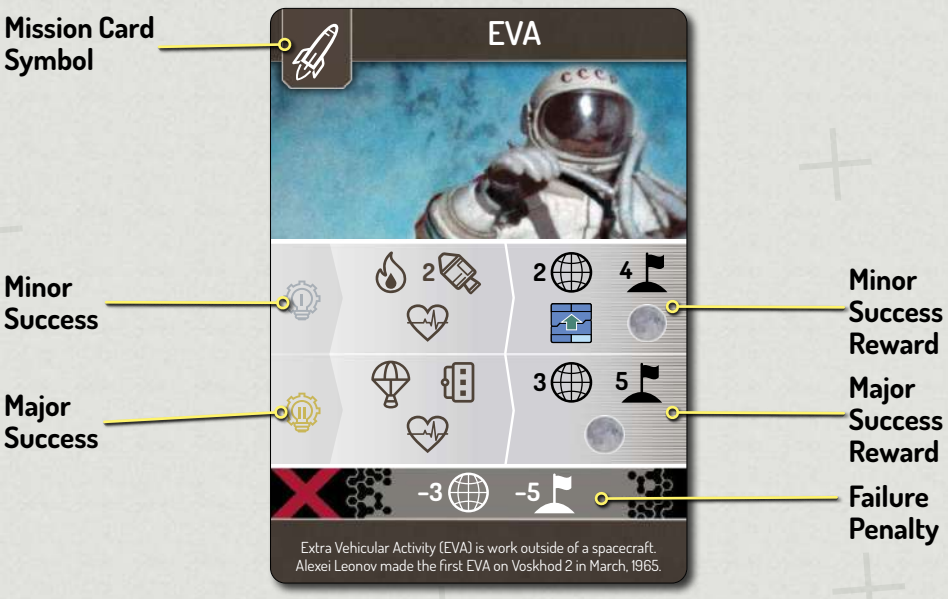
3. **Mission Rewards —** Gain the Minor Success Rewards. Also gain the Major Success Rewards if you also paid the Major Success Cost.

   You may gain the rewards in any order that you choose.

   Reward Symbols — The Reward symbols are described on the back page.

4. **Discard Mission —** If the Mission did **not** fail, discard it into your Team Discard Area. If the Mission failed, discard it into the Game Discard Area.

MISSION CARDS



HAZARD CARDS

Hazard Cards — Hazard Cards add unknown risks to a Mission and make it more difficult.

Gaining Hazards— If you gain a Hazard Card, place it on any one of your Missions without looking at it.

Giving Hazards— If you place a Hazard Card on the other Team, you may look at it first and place it face down on any one of their Missions.

Revealing Hazards — When you launch a Mission, reveal all Hazard Cards on the Mission.

Satellite Hazard — Add the additional Resource cost pictured to the right of the Satellite symbol to the Satellite Mission's Minor Success Cost.

Crew Hazard — Add the additional Resource cost pictured to the right of the Crew symbol to the Crew Mission's Minor Success Cost.

Unlimited Hazards — A Mission can have any number of Hazard Cards.



Hazard Reward — Receive the 1 VP shown on the Hazard if the Mission achieves at least a Minor Success.

Unique Hazards —Some Hazard Cards have unique effects. These are summarized on page 18 and the back cover.

DESIGNER'S NOTE

Satellite Hazards add one of the three Satellite Resources to the cost of a Satellite Mission. Crew Hazards add either one of the Satellite Resources or one of the three Crew Resources to the cost of a Crew Mission.

MOON PATH AND GAME END



Moon Path — The Moon Path consists of 6 Path Spaces.

Path Space — Each Path Space has an area for a Crew Bonus Tile, and a red square and a blue square to track the USSR's and US's progress along the Moon Path.

Path Advancement — Successful Crew Missions will grant you one or two Moon Path Advancement rewards.


Crew Markers

One Advancement — Place a Crew Marker, with your Team's side face up, one Path Space closer to the Moon than the last Crew Marker you placed.

Two Advancement — Place a Crew Marker, with your Team's side face up, two Path Spaces closer to the Moon than the last Crew Marker you placed. This will leave a Path Space without one of your nation's Crew Markers on it.

First Advancement — Your Team's first Path Advancement starts on the Path Space closest to the Earth and farthest from the Moon.

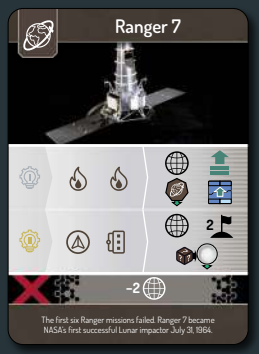
Game End — The game will end at the end of the Round during which a Team places their Crew Marker on the last Path Space, on the Moon.

LAUNCH EXAMPLE

The US and USSR each have two Missions at the Launch Stage. The US has Initiative and launches a Mission first.

TURN 1 - US Launches

The US goes through the Launch Sequence for the "Ranger 7" Satellite Mission.



1. **Attempt Minor Success** — The US spends a Temporary Booster Resource and a Permanent Booster Resource to achieve the Minor Success.
2. **Attempt Major Success** — The US does not have a Navigation Resource, so they can **not** achieve a Major Success nor gain its rewards.
3. **Mission Rewards —** The US gains the following four rewards for achieving a Minor Success (see back cover for reward symbol descriptions):

   The US increases their Media Score by 1.

   The US discards a Temporary Capsule Resource and upgrades it to a Permanent Capsule Resource.

   The US draws a Satellite Bonus Tile and gains the rewards listed on it. See page 18 for an explanation of Bonus Tiles.

   This symbol is not used in the beginner game and is added during Advanced Games.

4. **Discard Mission —** Since the Mission was successful, the Mission Card is placed in the US Team Discard Area.

TURN 2 - USSR Launches

The USSR goes through the Launch Sequence for the "EVA" Crew Mission.



1. **Attempt Minor Success** — The USSR spends a Temporary Booster Resource, 2 Temporary Capsule Resources, and a Permanent Life Support Resource to achieve the Minor Success.
2. **Attempt Major Success** — The USSR spends a Temporary Landing Resource, a Permanent Sensor Resource, and a Temporary Life Support Resource to achieve the Major Success.
3. **Mission Rewards —** The USSR gains the following rewards for achieving a Minor and a Major Success (see back cover for reward symbol descriptions):

   The USSR gains 9 Victory Points in total from the Minor and Major Success Rewards.

   The USSR gains 5 Media in total from the Minor and Major Success Rewards.

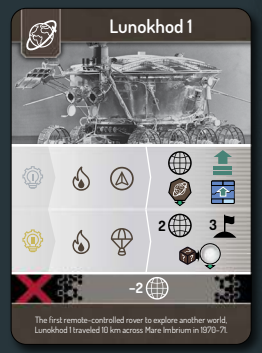
   The USSR advances 2 Spaces on the Moon Path since they achieved both the Minor and Major Successes. They place a Crew Marker, USSR side up, 2 Spaces further down the Moon Path than their last Marker.

   This symbol is not used in the beginner game and is added during Advanced Games.

4. **Discard Mission —** Since the Mission was successful, the Mission Card is placed in the USSR Team Discard Area.

TURN 3 - US Launches

The US goes through the Launch Sequence for the "Lunokhod 1" Satellite Mission.

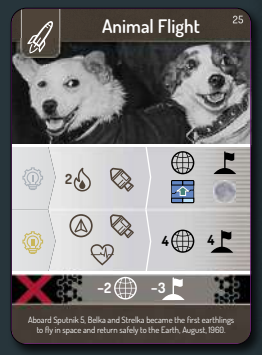


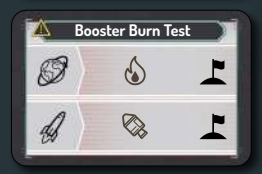
1. **Attempt Minor Success** — The US has a Temporary Booster Resource but does not have a Navigation Resource. The Mission fails and the US does **not** have to spend any resources.

   Mission Failure— The US takes the failure penalty at the bottom of the Mission, losing 2 Media. Steps 2 and 3 are skipped.
4. **Discard Mission —** Since the Mission was a failure, the Mission Card is placed in the Game Discard Area, not the Team Discard Area.

TURN 4 - USSR Launches

The USSR goes through the Launch Sequence for the "Animal Flight" Crew Mission. The Mission has one face down Hazard Card on it. The USSR flips it and adds the Crew Hazard to the Minor Success requirements of the Mission.





1. **Attempt Minor Success** — The USSR spends 2 Temporary Booster Resources and 2 Temporary Capsule Resources (1 for the Mission Card and 1 for the Hazard Card) to achieve the Minor Success.
2. **Attempt Major Success** — The USSR does not have any of the required Resources, so they can **not** achieve a Major Success nor gain its rewards.
3. **Mission Rewards —** The USSR gains the following rewards for achieving a Minor Success and overcoming the Hazard (see back cover for reward symbol descriptions):

   The USSR gains 1 Media in total from the Minor Success Rewards.

   The USSR gains 2 Victory Points in total, 1 from the Minor Success and 1 from the Hazard Card.

   The USSR advances 1 Space on the Moon Path. They place a new Crew Marker, USSR side up, 1 Space further down the Moon Path than their last Marker placed in Turn 2.

   This symbol is not used in the Beginner Game and is added during Advanced Games.

4. **Discard Mission —** Since the Mission was successful, the Mission Card and the Hazard Card are placed in the USSR Team Discard Area.

End of Phase

Neither Team has more Missions to Launch, so they move on to the next Phase.

BONUS TILES

Bonus Symbols — Symbols on Bonus Tiles are described on page 18 and the back cover.

Bonus Tile Limit — When a type of Bonus Tile runs out, no more Bonus Tiles of that type may be gained.

MEDIA BONUS TILES



Gaining Media Bonus — If your Media value is 5 or more, you may reduce your Media value by 5 to gain a Media Bonus at any time during one of your Team's Turns in any Phase.

Loop Media Track — If your Media value is at 8 and you are to gain Media, you must reduce your Media value by 5 and gain a Media Bonus. After reducing your Media, you continue gaining Media as normal.

Mandatory Gain — You must increase your Media value when you gain Media.

One Time Use — You do not have to use a Media Bonus right away. You can play it at any time during one of your Team's Turns or when the Media Bonus dictates. All bonuses on a Media Bonus Tile are gained when it is used and not before.

Saving Bonuses — Place unused Media Bonuses face up beside your Agency Board.

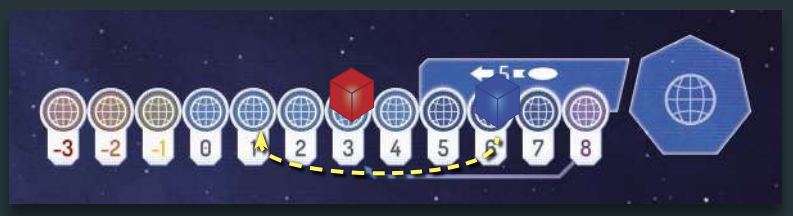
Used Bonuses — Place Media Bonuses you have used face down in your Team Discard Area.

DESIGNER'S NOTE

Media Bonus Tiles represent the public's and your government's support for your space agency. Media Bonus Tiles usually provide Agency Resources and a special ability when you use them.

GAINING MEDIA BONUS EXAMPLES

On the US Turn, the US Team decided to reduce their Media from 6 to 1 and draw a Media Bonus Tile



The USSR gain 3 Media. They first increase their Media from 7 to 8. Before gaining the second Media, they first reduce their Media by 5 down to 3 and gain a Media Bonus Tile. They then gain the remaining 2 Media which places them on 5.



SATELLITE BONUS TILES



Gaining Satellite Bonus — Gain Satellite Bonus Tiles from a Satellite Mission's Minor Success Rewards or from some Worker Actions.

Immediate Use — Gain the effects of a Satellite Bonus Tile immediately and place it face down in your Team Discard Area.

DESIGNER'S NOTE

Satellite Bonus Tiles represent the knowledge your Agency gains from a successful Satellite Mission experiment. Satellite Bonus Tiles usually give you a Crew Resource.

CREW BONUS TILES



Gaining Crew Bonus — After you advance along the Moon Path, gain the Crew Bonus Tile on the Moon Path space, if available.

One Per Space — If the Space's Bonus Tile has already been claimed, you gain nothing.

Skipping Bonuses — If you advance twice along the Moon Path from one Crew Mission, you do not gain a Crew Bonus Tile from the first Space you move over.

Immediate Use — Gain the listed VP immediately and place the Bonus Tile face down in your Team Discard Area.



Hazard — Gain a Hazard Card when you receive a Crew Bonus Tile from the Moon Path. Place it face down on one of your Missions without looking at it.

Advancement Token



New Staff: Ignore Advancement Tokens on the Crew Bonus Tiles.

Veteran Staff: Gain an Advancement Token when you gain a Crew Bonus Tile from the Moon Path.

Extra Bonus Tiles — Do not gain a Hazard Card or Advancement Token when you use a Worker Action that gains you a Crew Bonus Tile from the extra Crew Bonus Tiles beside the board. You only get the VP.

Final Bonus Tile — The Bonus Tile on the Moon is face up and does not give a Hazard Card or Advancement Token. The game ends at the end of the Round that this Bonus Tile is Taken.

DESIGNER'S NOTE

Crew Bonus Tiles represent the prestige of being the first to push the boundaries of what is possible. Crew Bonus Tiles give VP.

BONUS TILE AND HAZARD CARD CLARIFICATIONS

MEDIA BONUS CLARIFICATIONS



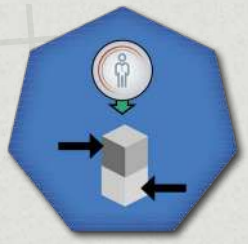
Use to:
- Gain one Funding
- Choose the result of one of your die rolls.



Use to:
- Gain one Funding
- Place two of your Team's Workers instead of just one on your Turn. They are placed one after the other.



Use to:
- Gain one Personnel
- Place an Administrator as an Engineer, or an Engineer as an Administrator.



Use to:
- Gain one Personnel
- Place your opponent's Media cube under your Media cube. They can not gain a Media Bonus from this.

SATELLITE BONUS CLARIFICATIONS

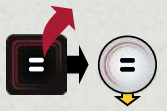


- Gain one Life Support,
- Draw two Event Cards. Discard an Event Card from your hand to the bottom of the Event Deck.



- Upgrade one Temporary Resource Token to a Permanent Resource Token.
- Draw a Hazard Card and place it on one of your Missions without looking at it.

HAZARD CARD CLARIFICATIONS



The other Team gains (from the supply) a Temporary Resource that matches a Permanent Resource you spent to succeed at the Mission. They do not gain anything if you fail the Mission or do not use any Permanent Resources.



Roll the red Satellite Resource Die and spend the Resource you roll -or- Move your Media cube directly to -3.



If the Mission succeeds, you must choose 1 reward to not receive.



You gain no Media rewards from Minor or Major Rewards.

If this Mission Fails, lose twice the Media indicated.

DESIGNER'S NOTE

You are now ready to play the beginner game. Read the rest of the rules once you have finished, and use the previous Veteran Staff rules in your future games.

UPGRADING EARTH ACTIONS

Upgrades — Each Earth Worker Action has two Upgrades:

Satellite Upgrade — Upgraded by a successful Satellite Mission reward.

Crew Upgrade — Upgraded by a successful Crew Mission reward.

Covered Upgrades — All ten Satellite Upgrades start covered by Satellite Markers and all ten Crew Upgrades start covered by Crew Markers. Either side of the Markers can be face up. Covered Upgrades have no effect on their Worker Action.

Upgrade Reward — The Earth Upgrade Reward symbol lets you remove a Satellite or Crew Marker from an Upgrade.

Satellite Upgrades — When the Earth Upgrade Reward symbol is on a Satellite Mission, remove any Satellite Marker from an Upgrade Space and place it into Earth's orbit (the line around the Earth on the board) with your Team's side face up.

Crew Upgrades — When the Earth Upgrade Reward symbol is on a Crew Mission, remove any Crew Marker from an Upgrade Space. This will be the Crew Marker that you place onto the Moon Path as a result of the Crew Mission's Moon Path Advancement reward (page 15).

Active Upgrades — Once an Upgrade is uncovered, it enhances the Action for both Teams.

Upgrade Effects — Upgrades enhance an action in one of three ways, as indicated by the symbol in the top left corner of the Upgrade.

Additional Effect — Add the Upgrade to the Action's normal effects.

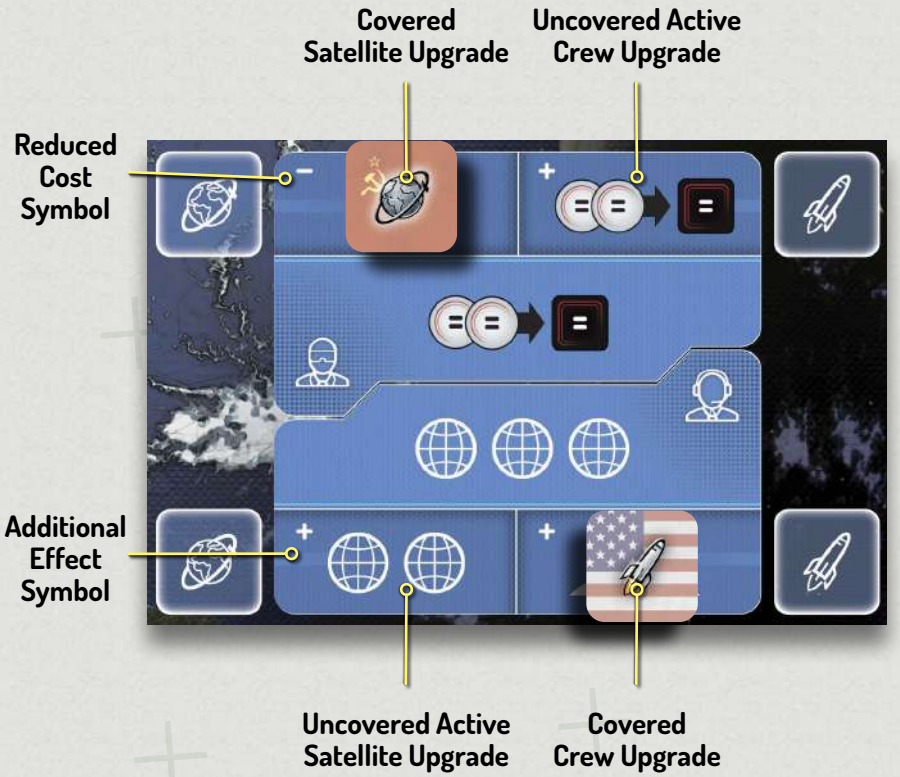
Reduced Cost — Reduce the cost of the Action (shown left of the colon (:) or arrow) by the amount shown by the Upgrade.

Alternative Effect — You may use the Upgrade's effects instead of the Action's effects.

Non-Upgradeable Upgrades — Upgrade Actions are never affected by other Upgrades.

Separate Costs — Additional Effect Upgrades are still gained even if the normal Worker Action's cost is not paid.

If an Upgrade has a cost, it must be paid in order to use the Upgrade's effect. This cost is separate from any cost that must be paid for the Worker Action.



SATELLITE UPGRADING EXAMPLE

The US has just successfully launched a Satellite Mission. They gain an Earth Action Upgrade as one of their rewards.

They chose 1 Satellite Marker from any of the 10 Satellite Upgrades and move it into orbit around the Earth, with the US side of the Marker face up.

The uncovered Upgrade is now Active, reducing the cost of the Worker Action. The Action now costs no Resource Token to use.



CREW UPGRADING EXAMPLE

The USSR has just successfully launched a Crew Mission. They gain an Earth Action Upgrade as one of their rewards.

They chose 1 Crew Marker from any of the 10 Crew Upgrades and remove it.

The Crew Mission also awarded the USSR one Moon Path advancement. The USSR already has a Crew Marker on the Moon Path, so they place the Crew Marker they removed from the Upgrade onto the next Path Space closer to the Moon with its USSR side face up.



The Path Space has a Crew Bonus Tile on it, so the USSR gains it. The Crew Bonus Tile provides them with VP, forces them to place a Hazard Card on one of their Missions, and gains them an Advancement Token (Advancement Tokens are introduced on the next page).

USING AN UPGRADED ACTION EXAMPLE

All Earth Actions have been fully Upgraded.

The USSR places an Administrator to use the bottom Worker Action. The "/" icon on both upgrades allows the Worker to use either Upgrade effect instead of the Worker Action's effect. They choose to use the Crew Upgrade to roll a brown Crew Die for a Temporary Resource.



The US places an Engineer to use the top Worker Action. The "-" icon on the Satellite Upgrade reduces the Worker Action's cost by 1 Temporary Resource. This allows the US to spend 1 Temporary Resource to gain a matching Permanent Resource. The Crew Upgrade allows the player to spend an additional 2 matching Temporary Resources to gain a matching Permanent Resource. Note that the Satellite Upgrade does not reduce the cost of the Crew Upgrade.

ADVANCEMENT

Between Phases — Each Team may purchase any of the four face up Advancement Cards between any two Phases. The Teams purchase the cards in Initiative order and may purchase multiple cards.

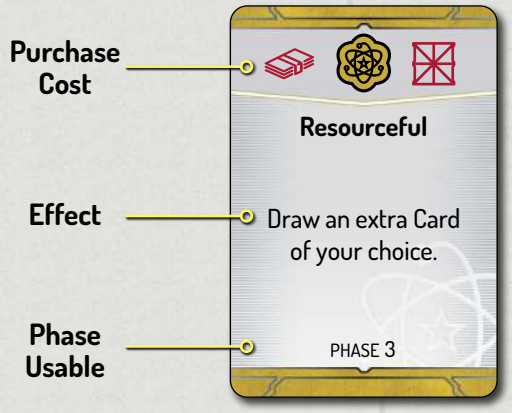
Place Advancement Cards to the right of your Agency Board next to the Advancement symbol.

Advancement Cost — Spend an Advancement Token and the Agency Resources pictured at the top of the card.

Replace Immediately — Replace a face up Advancement Card when it is purchased.

Phase Usable — The number at the bottom of the card indicates during which Phase its effect is usable. Some may be used in Any Phase.

Permanent — Once purchased, you can use an Advancement Card for the rest of the game.



ADVANCEMENT CARD CLARIFICATION



Purchase Cost: 1 Advancement Token, 1 Funding Resource, 1 Personnel Resource.

During Phase 5: Personnel, you may use one of your Personnel Cards twice.

The Personnel Action's Cost must be paid each time the Personnel Action is used.



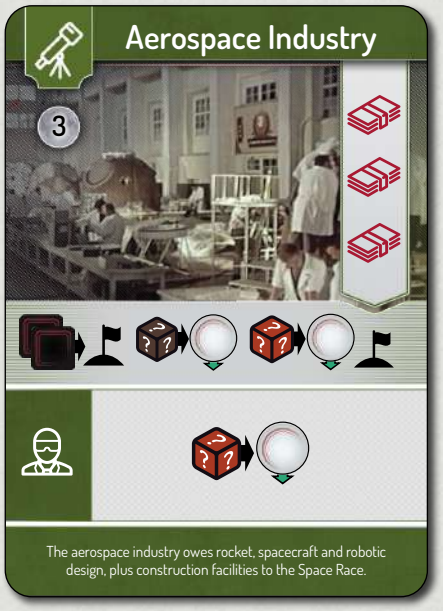
Purchase Cost: 1 Advancement Token, 2 Personnel Resources.

During Phase 4: Worker Placement, you may use one circular Temporary Personnel Resource as an Administrator or an Engineer Worker on an Earth Action or a Card Action. This takes up your Turn placing a Worker. The Personnel Resource blocks the placement of other Workers on the Action Space.

This Advancement Card allows you to effectively place a total of 5 Workers.

The Personnel Resource is discarded at the end of the Phase.

EVENT CARD CLARIFICATIONS



When purchased from your hand:

Gain 1 VP for every 2 Permanent Resources your Team has.

-and-

Roll the brown Crew Resource die and gain the Temporary Resource rolled.

-and-

Roll the red Crew Resource die and gain the Temporary Resource rolled.

-and-

Gain 1 VP.



Personnel Action:

Gain 1 Media.

-or-

Draw a Satellite Mission Card and immediately attempt to Launch it. If a Major Success is achieved, gain an additional 2 VP.



When purchased from your hand:

Gain 2 VP for every Personnel Card that you have in play and in your Team Discard.

-and-

Gain a temporary Life Support Resource.

-and-

Gain 1 VP.



When purchased from your hand:

Gain 1 VP for every Satellite Bonus Tile your Team has in your Team Discard.

-and-

Gain a temporary Booster Resource.

-and-

Gain a temporary Navigation Resource.

-and-

Gain 1 VP.



When purchased from your hand:

Gain 2 VP for every Hazard Card your Team has in your Team Discard.

-and-

Gain a temporary Life Support Resource.

-and-

Gain 1 VP.

When Worker Action used:

Gain a temporary Personnel Resource

-and-

Gain a temporary Resource of your choice.



When purchased from your hand:

Gain 1 VP for every two Development Cards in your Team Discard.

-and-

Gain a temporary Navigation, Sensor, or Booster Resource.

-and-

Gain 1 VP.



When purchased from your hand:

Gain 1 VP for every Media Bonus Tile your Team has in play and your Team Discard.

-and-

Gain 5 Media (after you gain the VP for Media Bonus Tiles).

-and-

Gain 1 VP.



When purchased from your hand:

Gain 3 VP for each unspent Advancement Token you have.

-and-

Gain a temporary Capsule Resource.

-and-

Gain 1 VP.



When purchased from your hand:

Choose any Crew Mission Bonus Tile in your Team Discard and score VP for it again.

-and-

Gain 2 temporary Booster Resources.

-and-

Gain 1 VP.

When Worker Action used:

Draw a Crew Mission Card from your Teams Crew Deck and immediately attempt to Launch it.



When purchased from your hand:

Gain 1 VP for every 3 Temporary Agency Resource Tokens that you have (in any combination).

-and-

Gain a temporary Landing Resource.

-and-

Gain 1 VP.

When Worker Action used:

Gain an Advancement Card at no cost.

RACING TO THE MOON ON A PILLAR OF FIRE

The Space Race was a competition for technological supremacy between the US and the USSR.

This description alone is overly simplistic. World circumstances at the time played a large part in the story of the Space Race. It was also a perceptual race: the victor would be perceived as the world's leader in advanced technology, with greater military power, the stronger political system, and a proven way of life. Success would provide a significant boost to a world population weary of war and less trusting of the intentions of other countries.

Thus in 1955, both the United States and the Soviet Union declared their intent to launch a satellite into orbit around the Earth for the coming International Geophysical Year (1957–58). These nearly coincident announcements effectively signaled the beginning of a challenge that would last over a decade, a challenge we call the Space Race.

Old Grievances Return

Prior to World War II, there had been tension and rivalry between the US and the USSR. During the war the two superpowers had maintained a tenuous but functional alliance. After the war, almost as soon as the common enemy of Germany was defeated, the old fears of communism vs. democracy returned, and anger over international standing ratcheted up to new levels.

These concerns were affected by the new world stage. Europe, especially Germany, was partitioned among the Soviets and her communist allies in Eastern Europe; and the United States, the UK, and their allies of the free world in the West. To the US, although democracy had triumphed, the cause of communism had also been advanced. Fearful, the US soon adopted a foreign policy intended to contain the further expansion of communism.

The years 1946–47 saw the birth of the Cold War — termed "cold" as there was neither open aggression nor direct battle between the contenders, and a "war" as both sides took secretive action to preserve and expand their way of life. Behind the scenes, both countries supported conflicts in nations in which they had a vested interest. Although these conflicts involved smaller countries, they nonetheless cost many lives.

Ten years into this restless backdrop of fear, uncertainty, and doubt, the Space Race would emerge.

Soviet Progress Alarms the US

In 1949 the Soviet Union exploded their first atomic bomb, and fears of communist aggression exploded in the United States along with it. Could the West trust the peaceful intentions of a dictator who had invaded Finland, Poland, China, and other neighboring countries? The fact that the Soviet Union had developed atomic weapons was now viewed as a serious threat.

Both sides deemed open warfare to be suicide, but East and West would still seek to exercise their influence on the world by attempting to show that their political, economic, and technological foundations were superior to those of the other side. Less-developed nations in Africa, Asia, and South America would experience this influence.

This ever-present sense of threat created an environment for promulgating fear. In 1950, US senator Joseph McCarthy spread paranoia in the minds of citizens over fears of "communist subversion" and "communist sympathizers." Hundreds were imprisoned, and thousands subjected to contentious investigations in spite of questionable or inconclusive evidence. It took a stern common-sense reminder from journalist Edward R. Murrow to rein in rampant McCarthyism, when he stated on television, "We must not confuse dissent with disloyalty. We must remember always that accusation is not proof and that conviction depends upon evidence and due process of law. We will not walk in fear, one of another."

It wasn't long before the Cold War expanded into a new battleground – far above the planet's surface, in space. In 1952, the International Council of Scientific Unions proposed a worldwide series of focused scientific geophysical studies from July 1957 to December 1958, to be known as "The International Geophysical Year." President Eisenhower's press secretary James Hagerty announced on July 29, 1955 that the United States would launch an artificial satellite to orbit the Earth during this period. Four days later, Leonid Sedov, a leading physicist in the USSR, announced that they too would launch an artificial satellite.

The starter's pistol of the Space Race had now been fired. From this point onward, political overtones influenced every decision affecting the advancement into space.

The Race Begins

President Eisenhower insisted the space program be civilian so that it could not be misunderstood as a threat by the Soviets. Project Vanguard was initiated, a civilian operation run in cooperation with the Navy's Naval Research Laboratory, to launch America's first satellite. The Soviet Union opted for a similar joint military/civilian program.

On October 4, 1957, Sergei Korolev launched the first-ever ICBM carrying a small metal sphere with a simple radio, Sputnik. Its constant beep as it circled the Earth announced that the Soviet Union had seized the high ground of space. This alarmed the American public. The Russians were thought to be a bunch of backward potato farmers. How could the US not be the first into

How Yesterday's Race Affects Our Lives Today

Here is just a sampling from thousands of technologies derived from the exploration of space.

- Artificial Limb technology
- Weather satellites
- Communications satellites
- High-tech athletic shoe materials
- Tiny cameras (cell phones, baby monitors)
- Digital imaging (CAT scanners and radiography)



space? If Russia could launch a satellite in orbit, they could just as easily drop nuclear bombs on New York from outer space! The United States had to take their rival seriously now.

But Project Vanguard was struggling. Setbacks and launch failures meant the US had no response to the Sputnik success. America turned to a former enemy to help accelerate its ballistic missile program: Wernher Von Braun and scientists who had developed the V-2 missile for Germany. These men had been recruited immediately following the war and now worked at the Redstone Arsenal in Huntsville, Alabama. Von Braun's team was given permission to go ahead. On January 31, 1958, they succeeded in launching Explorer 1 on a Juno rocket, which was a modified Redstone missile.

The Space Race was under way but the United States was off to a slow start.

The National Advisory Committee on Aeronautics (NACA), which had been founded in 1915 to promote Aeronautical research, was then re-organized into the National Aeronautics and Space Administration (NASA) to take on the new mission of space flight and exploration. Von Braun joined NASA's Marshall Space Flight Center as its new director.

Kennedy Sets Course for the Moon

Not long after John F. Kennedy's inauguration as President, the Soviets delivered another shock: Yuri Gagarin orbited the earth in 1 hour 48 minutes on April 12, 1961, becoming the first man in space. The next month, President Kennedy spoke before a joint session of Congress – a very rare occurrence in times of peace – to ask for a national commitment to space. Kennedy said, "I believe this nation should commit itself to achieving the goal, before the decade is out, of landing a man on the Moon and returning him safely to the Earth."

It was known that the Russians had more powerful rockets, which gave the Russians an advantage.

Continued on page 25

- Space blankets
- 'Memory foam' (cushioning, more effective sleep)
- Modern home insulation (based on NASA research)
- Ear thermometers technology
- Emergency workers save people with Jaws of Life
- Freeze Dried food was developed for space
- A portable Moon material sample collector became the 'dust buster' cleanup tool of today

SPACE RACE TIMELINE

Black text indicates world events.
Red text indicates USSR events.
Blue text indicates US events.

1945

WWII ends. Invaded lands are returned. Germany is divided up. The USSR annexes occupied countries, expanding its Communist influence.

1947 MARCH

Fear of spreading Communism drives the Truman Doctrine. The Cold War begins. McCarthyism fuels people's fears of the USSR and Communism.

1955 AUGUST

Four days apart, the US and the USSR announce their separate intention to launch satellites. The Space Race has officially begun.

1957 OCTOBER–DECEMBER

October 4, USSR launches the first man-made object into orbit, Sputnik. Sputnik 2 follows with the first animal in orbit, a dog named Laika. The US Vanguard satellite mission fails in a launch pad explosion.

1958 JANUARY–OCTOBER

The US successfully launches its first satellite, Explorer. NACA becomes NASA (National Aeronautics and Space Administration), initiates Project Mercury, and in October launches its first spacecraft, Pioneer 1 .

1959 JANUARY–OCTOBER

The USSR sends Luna 1 to the Sun and receives the first telemetry data from space. Luna 2 impacts successfully on the Moon. Luna 3 circles the Moon and takes the first images of the far side.

1960 APRIL–DECEMBER

USSR has two Luna-E launch failures. US Pioneer P-30 and P-31 fail to orbit. Corona Spy Satellite photos are recovered from space (Discoverer 14). Animals launch into orbit and return to Earth safely.

1961 APRIL–MAY

April 12, Cosmonaut Yuri Gagarin (USSR) is the first human in space aboard Vostok 1. May 5, Alan Shepard becomes the first American in space on Freedom 7.

Continued on page 26.

By making the Moon the finish line, Kennedy declared a goal that was beyond the current reach of both the US and the USSR. This goal implied that unmanned satellites and manned capsules orbiting the Earth were only steps along a greater path. Both sides would need to focus on developing the equipment necessary to meet a more distant goal.

The United States determined to learn how to fly in space. Project Mercury was created to determine whether man could function in a zero-G environment. Project Gemini explored the skills necessary for a flight to the Moon, such as endurance, EVA (Extra-Vehicular Activity), and docking. Project Apollo combined the results learned from these two initiatives to put them into practice.

Changes at Home and Abroad

In November 1963, President Kennedy was murdered by an assassin's bullet. His stated "end of the decade" deadline morphed into a national priority. The United States now believed they had to beat the Russians to the Moon, and they had to achieve it before 1970. The martyred President's goal had elevated the importance of NASA's mission.

From an outside perspective, the Soviet Union's program appeared to be a well-oiled machine making steady progress; but from the inside, it was rife with turmoil. Premier Nikita Khrushchev had created political enemies within the Politburo in Moscow, and in 1964 those enemies, Leonid Brezhnev and his colleagues, seized power. Brezhnev's strong focus on the military applications of space exploration further concerned the US.

Up to this time the Soviet Union dominated the Space Race. In eight years, they had accomplished many more "firsts" than the US.

- October 4, 1957: First artificial satellite (Sputnik)
- September 14, 1959: First lunar probe to impact the Moon (Luna 2)
- October 4, 1959: First to photograph the far side of the Moon (Luna 3)
- August 19, 1960: First animals to orbit the earth and be safely recovered (Belka and Strelka)
- April 12, 1961: First man to orbit the Earth (Cosmonaut Yuri Gagarin)
- June 16, 1963: First woman to orbit the Earth (Valentina Tereshkova)
- October 13, 1964: First multi-crew space craft (Voskhod 1)
- March 18, 1965: First spacewalk (Alexei Leonov)

To all appearances, the USSR had a gigantic lead, but the unexpected death of the Chief Designer of the Soviet Space program, Sergei Korolev, threw a wrench into the engine and threatened to lessen the lead. Korolev had been a gifted project manager and political navigator who knew how to pull political strings to get the support he needed to drive the space program forward. Sergei's deputy at OKB-1, Vasily Mishin, was appointed Chief Designer. While a gifted engineer, Mishin lacked the political charisma to orchestrate the support he needed as Sergei had, and Brezhnev's policies siphoned more funding to the buildup of nuclear arms than to the space program.

As a result, unknown to the US, Soviet development began to lag.

Civil and Political Disaffection Grow

Political unrest affected the United States at this time. Civil disquiet resulted from civil rights struggles to end segregation and the Jim Crow laws. President Johnson escalated existing US military intervention in Vietnam to stop the spread of communism in southeast Asia and, although the public generally approved of this action in 1965, by 1968 support for the war in Vietnam was collapsing. Protests grew common and violent. US citizens had begun to voice their doubts about the government and their disagreement with its decisions. This too was a divisive issue tearing at the country's seams.

In the midst of this civil maelstrom, NASA remained an island of calm in a sea of change, yet it too had concerns. Staff members and contractors alike were entirely focused on meeting Kennedy's challenge. Despite their dedication, workers took shortcuts to meet unrealistic delivery goals. This phenomenon, identified variously as "Go Fever" or "Launch Fever," came to an abrupt halt on January 27, 1967 when a routine test on the pad caused a spark to ignite the pure oxygen atmosphere inside the Apollo 1 capsule. The resulting fire killed astronauts Gus Grissom, Roger Chaffee, and Ed White.

NASA's manned flight program shut down for 18 months as a technical reviews and a congressional inquiry investigated the cause of the fire. The Apollo spacecraft was stripped down and redesigned with new materials. The result of these changes: a much safer capsule environment for space flight.

Ironically the Soviet Union also stumbled within weeks of the Apollo 1 fire. Soyuz, the spacecraft that would carry cosmonauts to the Moon, had technical problems in its development. Like Apollo, it was rushed to launch. The primary crewman of Soyuz 1, Vladimir Komarov, knew it had unaddressed safety problems. However, since his back-up was Yuri Gagarin, Komarov did not want to risk the life of a 'Hero of the Soviet Union' going in his place; Komarov grimly accepted the flight. Once in orbit, Soyuz 1's solar panel failed to deploy. Komarov did not have enough power to control its flight, and the mission was aborted. Komarov died when his capsule crashed into the ground due to parachute failure.

Time to Go to the Moon

In the US, sometime after Wally Schirra and his crew successfully tested an Apollo capsule in Earth orbit (October, 1968), the CIA delivered an intelligence briefing to President Johnson. The CIA's Corona spy satellite had photographed a massive rocket on a Soviet pad, the giant N-1, that was believed to be capable of taking the USSR to the Moon. President Johnson could not take the chance that the Russians might beat the US when it was so close to the goal. He authorized Apollo 8 to go to the Moon.

Apollo 8 flew to the Moon in late December of 1968. Orbiting the Moon, Apollo 8 captured what Time Magazine called one of the most influential photographs of the twentieth century. "Earthrise" captured the Earth rising over the horizon of the Moon. The first color photograph of the entire Earth hanging in space changed the perspective many people had of their home planet, and even spurred environmental movements to protect the planet.

The N-1 rocket the CIA had photographed was the USSR's first test vehicle. It failed three minutes after liftoff, and effectively grounded the Soviet Moon program for a time. This opened the way for continuing Apollo missions that would ultimately achieve Kennedy's challenge before the decade was





out, when Apollo 11 touched down on the Moon, in the Sea of Tranquility, on July 20, 1969, at 20:17:40 UTC.

The Space Race was effectively over. *

Epilogue

NASA would complete six successful expeditions to the Moon as of Apollo 17's lunar mission in 1972, but public support for the exploration of space was waning. Ambitious plans to send expeditions to Mars or build a permanent lunar base were shelved indefinitely. Remaining equipment from the canceled lunar missions of Apollo 18, 19, and 20 was used in the Skylab program, the US's first and only space station, operating from 1973 to 1974. The Soviet Union space program under Valentin Glushko achieved and maintained a longer-lasting presence in space, however, operating 7 different Salyut space stations from 1971–1986, and Mir from 1986–1991.

The last flight of an Apollo spacecraft was a goodwill mission in cooperation with America's former rival, the Soviet Union, during the Apollo-Soyuz Test Project (ASTP). Deke Slayton, one of the original Mercury 7 astronauts, was selected to be one of the American crew, and Alexei Leonov, the first man to walk in space, headed the Soviet crew. The two spacecraft would meet and dock in orbit on July 17, 1975. The spirit of international cooperation first practiced in the Apollo-Soyuz Test Project continues today in the International Space Station.

Communist regimes were being ousted in eastern Europe between 1989 and 1991. In late 1991 the Soviet Union itself dissolved into its component republics. With that, the Cold War came to a close.

The exploration of space continues.

* The exact year marking "the end" of the Space Race is cause for discussion. Some sources cite 1969 (Apollo 11 lands on the Moon), others 1975 (the first joint US-Soviet Apollo-Soyuz mission), and still others 1991 (the collapse of the Soviet Union). Whichever year is preferred, the US "won" the unofficial race to the Moon and the advancements from space exploration produce ongoing benefits to this day (see 'Yesterday's Space Race Affects Our Lives Today').

TIMELINE (CONTINUED)

1962 FEBRUARY–NOVEMBER

US launches Friendship 7, John Glenn orbits the Earth. Ranger 4 fails before impacting on the Moon. USSR launches the Zenit spy satellite to photograph the US from space.

September 12, President Kennedy challenges America to go to the Moon. Aviator Wally Schirra orbits Earth six times in Sigma 7.

1963 MAY–JUNE

Gordon Cooper pilots the longest and last Mercury spaceflight on Faith 7. Valentina Tereshkova, aboard Vostok 6, is the first woman in space.

1964 JULY, OCTOBER

Ranger 9 lunar surface photo mission succeeds. USSR sends a multi-person crew into space on Voskhod 1.

1965 MARCH–JULY

First space walk by Aleksei Leonov. Astronaut Edward H. White II performs the first US spacewalk. Zond 3 makes a lunar flyby.

1966 FEBRUARY–JUNE

Luna 9 lands on the Moon and transmits photographs. Venera 3 is the first spacecraft to impact on another planet, Venus. Neil Armstrong and David Scott achieve the first orbital docking. Luna 10 is the first spacecraft to orbit the Moon. Surveyor 1 lands on the Moon and transmits photographs.

1967 JANUARY–APRIL

Gus Grissom, Ed White, Roger Chaffee die in Apollo test. Outer Space Treaty signed. Soyuz 1 fails. Vladimir Komarov is the first space flight fatality.

1968 DECEMBER

US launches Apollo 8 and succeeds in a manned moon orbit.

1969 FEBRUARY–NOVEMBER

First two USSR N-1 rocket launches fail. July 20: Apollo 11 lands on the Moon. Neil Armstrong takes "one small step."

SYMBOL REFERENCE (BY COLOR FAMILY)

Roll the gray Agency Die and gain both of the Resources rolled (pg 9).

Roll the gray Agency Die and choose to gain one of the Resources rolled.

Advance one Space on the Moon Path (pg 15).

Move opponent's Media cube to your marker's space and place it beneath your marker.

Roll the red Satellite Die and gain the Resource rolled (pg 9).

Spend a matching Temporary or Permanent Resource when paying to play a Development Card (pg 14).

Spend 1 less resource when paying to play a Development Card. This can make the card free.

Roll the brown Crew Die and gain the Resource rolled (pg 9).

Draw a Crew Bonus Tile from the stack of Tiles next to the Board. Do not gain a Hazard Card or Advancement Token.

Draw a Satellite Bonus Tile.

Draw a Satellite or Crew Mission Card.

Draw a Satellite Mission, Crew Mission, or Event Card.

x1 Only keep one of the drawn cards. Put the other cards back on top of the decks they were drawn from.

Move your Team's Media cube up one Space on the Media Track or gain the number of Media shown before the Media symbol. (pg 5).

Gain 1 VP or gain the number of VP shown before the VP symbol.

Launch a Mission you just drew immediately. If the Action did not just draw a Mission, choose any of your Missions to Launch immediately.

Before rolling a die, choose the result of a die roll instead of rolling. This symbol does not allow you to roll a die, just to choose the result of a roll gained by another symbol.

Draw a Hazard Card. Place it on one of your own Missions without looking at the card unless you are instructed to place it on an opponent's Mission.

Place a drawn Hazard Card onto a Mission of the other Team. You may look at the Hazard Card first.

x1 Place max **one** of the drawn Hazard onto an opponent's Mission. You may look at all the Hazards first. Unplaced Hazards are put on the bottom Hazard Deck.

Look at a Hazard Card on one of your Team's Missions.

Gain an Advancement Token.

Draw and gain an Event Card.

Discard a Development Card from your Team's Hand to the bottom of the Event Deck.

Play an Event Card from your Team's Hand. You must pay for the Development to play it.

Draw 2 Event Cards and discard 1 card from your hand to the bottom of the Event Deck.

Upgrade a Temporary Resource to a matching Permanent Resource. You cannot Upgrade a Resource you gained in the same Turn (pg 9).

Draw a Media Bonus Tile.

Upgrade an Earth Action by removing either a Satellite or Crew Marker from an Action Upgrade (pg 19).

Immediately use either the Administrator or Engineer Action of any Earth Space, even if it already has a Worker on it.

Place two Workers in one Turn, one after the other.

Use an Administrator Worker as an Engineer Worker or an Engineer Worker as an Administrator Worker.

0 Go directly to the indicated numbered space on the Media Track. No Media Bonus is gained from this.

Spend any one Temporary Resource.

Spend any one Permanent Resource.

Spend any one Temporary or Permanent Resource.

Gain any one Temporary Resource.

Gain any one Permanent Resource.

Spent and/or gained Resources must be the same type of Resource.

Gain one of the pictured Resource tokens.

One Small Step
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