



APOGEE TEST MISSION

PRINT & PLAY
PARIS, FRANCE
2020

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DTDA Games

APPROVED BY
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—
AUTHORITY
06

HARPER TOMPKINS
UNITED STATE OF AMERICA
SPACECRAFT MISSION DIRECTOR
@SPACE8

—
QUARTER
GAIN
✦ 20,000

—
LAUNCH
GAIN
✦ 100,000

ALL MISSIONS

—
SPECIALTY

Retain all of your First Stage Technologies after a successful launch, 1 time during the game

—
ENGINEER

✦ 40,000

—
PUBLIC MARKET

✦ 20,000

MISSIONS 4 TO 9

—
NATION

Buy a Technology placed in the reserve of the competitor of your choice for ✦60,000

DOCKING SEQUENCE



—
AUTHORITY
08

LIAM VAN HORN
UNITED STATE OF AMERICA
SPACECRAFT MISSION DIRECTOR
@BLAZE INFLUENCE

—
QUARTER
GAIN
✦ 20,000

—
LAUNCH
GAIN
✦ 100,000

ALL MISSIONS

—
SPECIALTY

Buy randomly 1 Engineer from the competitor of your choice for ✦60,000, 1 time during the game

—
ENGINEER

✦ 40,000

—
PUBLIC MARKET

✦ 20,000

MISSIONS 4 TO 9

—
NATION

Buy a Technology placed in the reserve of the competitor of your choice for ✦60,000

DOCKING SEQUENCE



ALL MISSIONS

—
SPECIALTY

Sell a Technology from your reserve to the public market for ✦80,000, 1 time during the game

—
ENGINEER

✦ 40,000

—
PUBLIC MARKET

✦ 20,000

MISSIONS 4 TO 9

—
NATION

Buy a Technology placed in the reserve of the competitor of your choice for ✦60,000

DOCKING SEQUENCE



—
AUTHORITY
05

ANDREW WINGFIELD
UNITED STATE OF AMERICA

SPACECRAFT MISSION DIRECTOR
@RAW UNIVERSE

—
QUARTER
GAIN

✦ 20,000

—
LAUNCH
GAIN

✦ 100,000



MISSION 1

Make 1 successful launch into LEO

MISSION 6

Make 1 successful human space launch
with a thrust of 29 or more

ELEKTRIK GMBH

An international player in nuclear fuel cycle products, Elektrik GMBH offers a high added value service throughout the entire nuclear energy cycle.

INVESTOR

ELEKTRIK GMBH

OBJECTIVE 1

⚡ 60.000

THERE IS NO POINT RUNNING

Acquire the Upper stage Technology with the «Nuclear Propulsion» characteristic

OBJECTIVE 2

⚡ 140.000

ATOMICALLY YOURS

Be the first to successfully launch with a Nuclear Technology (1st floor & Upper floor)

REEF ENERGY

Rethinking today's energy for our children and our planet is the goal of Reef Energy. Our commitment is to be fully dedicated to the transition to cleaner energy production.

INVESTOR

REEF ENERGY

OBJECTIVE 1

⚡ 80.000

BUILD LASER PROPULSION

Build «Laser Propulsion» Technology

OBJECTIVE 2

⚡ 140.000

QUICK REACTION

Be the first to successfully launch with «Ion Propulsion» Technology

VISION INTERIM

Vision Interim mobilizes its employees in its commitment to mobilize experts and develop new solutions, particularly in space innovation.

INVESTOR

VISION INTERIM

OBJECTIVE 1

⚡ 60.000

DEVELOP AN INHABITED CAPSULE

Acquire a Payload Technology with the «Manned Flight» characteristic

OBJECTIVE 2

⚡ 140.000

SEND A TOURIST TO ORBIT

Make 1 successful human space launch in LEO with at least 3 astronauts

glascom

Glascom is a committed player that deploys innovative technologies and services to make digital technology and its uses available to as many people as possible.

INVESTOR

GLASCOM

OBJECTIVE 1

⚡ 60.000

MAKE A SATELLITE

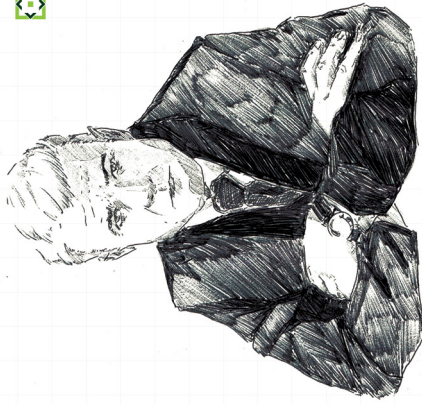
Build «Satellite» Technology

OBJECTIVE 2

⚡ 120.000

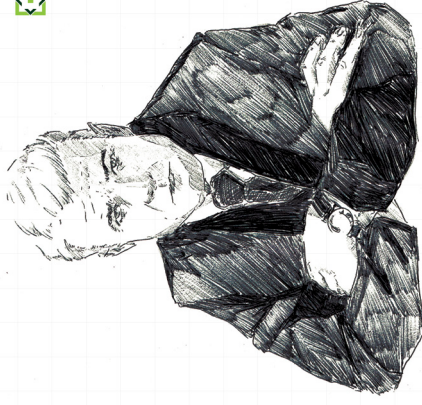
LAUNCH A COMMERCIAL SATELLITE

Make 1 successful GEO launch with «Satellite» Technology



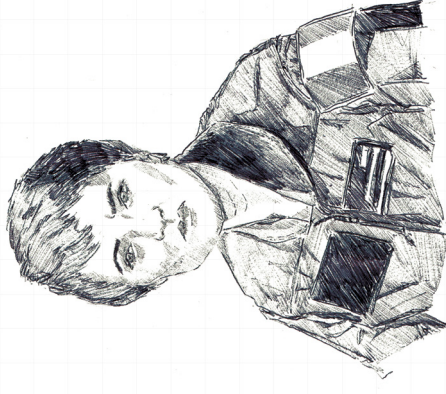
ENGINEER
—
AUTHORITY
5.6

OBERTH
JOZSEF
—
Reduce by \$20,000
the total cost of Technology
Construction for this round



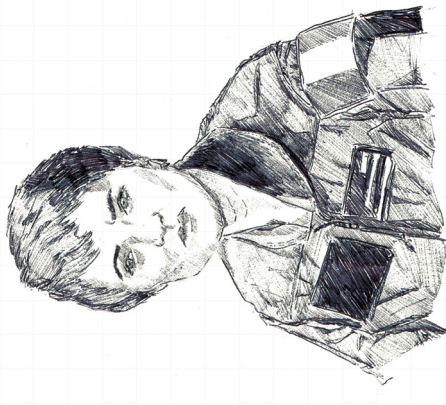
ENGINEER
—
AUTHORITY
5.2

OBERTH
JOZSEF
—
Reduce by \$20,000
the total cost of Technology
Construction for this round



ENGINEER
—
AUTHORITY
7.2

PELTERIE
CARLOTTA
—
Remove 1 competitor's
Engineer from Design
for this round



ENGINEER
—
AUTHORITY
6.8

PELTERIE
CARLOTTA
—
Remove 1 competitor's
Engineer from Design
for this round



ENGINEER
—
AUTHORITY
0.4

GOKHALE
CHANDRESH
—
Replace immediately
one line of Technology
in the river



ENGINEER
—
AUTHORITY
0.8

GOKHALE
CHANDRESH
—
Replace immediately
one line of Technology
in the river



ENGINEER
—
AUTHORITY
2.8

TSIOLKOVSKY
KATALINA
—
Reduce by 2 the chance of
a successful launch for this
round



ENGINEER
—
AUTHORITY
3.2

TSIOLKOVSKY
KATALINA
—
Reduce by 2 the chance of
a successful launch for this
round



ENGINEER
—
VON BRAUN
SEBASTIAN

AUTHORITY

8.4

Draw immediately
1 R&D card

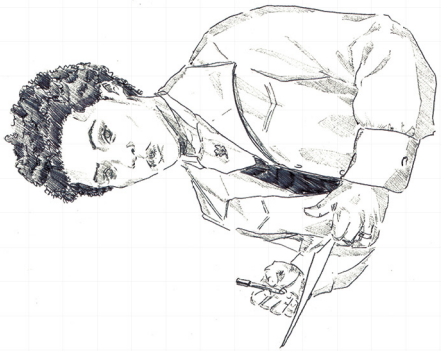


ENGINEER
—
VON BRAUN
SEBASTIAN

AUTHORITY

8.8

Draw immediately
1 R&D card



ENGINEER
—
JACKSON
PATRICIA

AUTHORITY

3.6

Increase by 40,000
Investor's gain, for this round



ENGINEER
—
JACKSON
PATRICIA

AUTHORITY

4.0

Increase by 40,000
Investor's gain, for this round



ENGINEER
—
FAGET
MARK

AUTHORITY

4.4

Reduce rocket mass
by 1 for this round



ENGINEER
—
FAGET
MARK

AUTHORITY

4.8

Reduce rocket mass
by 1 for this round



ENGINEER
—
DYSON
DIANE

AUTHORITY

9.2

Increase by 1 the thrust
of Nuclear First Stage
for this round



ENGINEER
—
DYSON
DIANE

AUTHORITY

9.6

Increase by 1 the thrust
of Nuclear First Stage
for this round



ENGINEER
CHELOMEI
MAXIM

AUTHORITY

8.0

Increase by 20,000 the
sale price of a Technology
to the public market,
for this round



ENGINEER
CHELOMEI
MAXIM

AUTHORITY

7.6

Increase by 20,000 the
sale price of a Technology
to the public market,
for this round



ENGINEER
JOHNSON
KATHY

AUTHORITY

2.0

Increases by 1 the chance
of a successful launch
for this round



ENGINEER
JOHNSON
KATHY

AUTHORITY

1.6

Increases by 1 the chance
of a successful launch
for this round

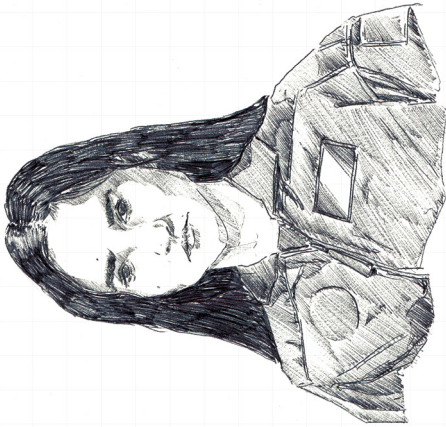


ENGINEER
CHAWLA
PAHAL

AUTHORITY

6.0

Replace immediately
an Investor card



ENGINEER
CHAWLA
PAHAL

AUTHORITY

6.4

Replace immediately
an Investor card

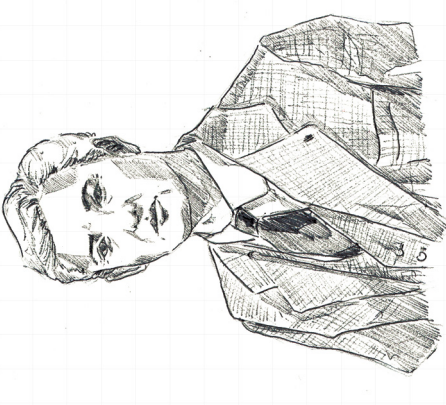


ENGINEER
OMI
KOSUKE

AUTHORITY

2.0

Remove 1 competitor's
Engineer from R&D
for this round

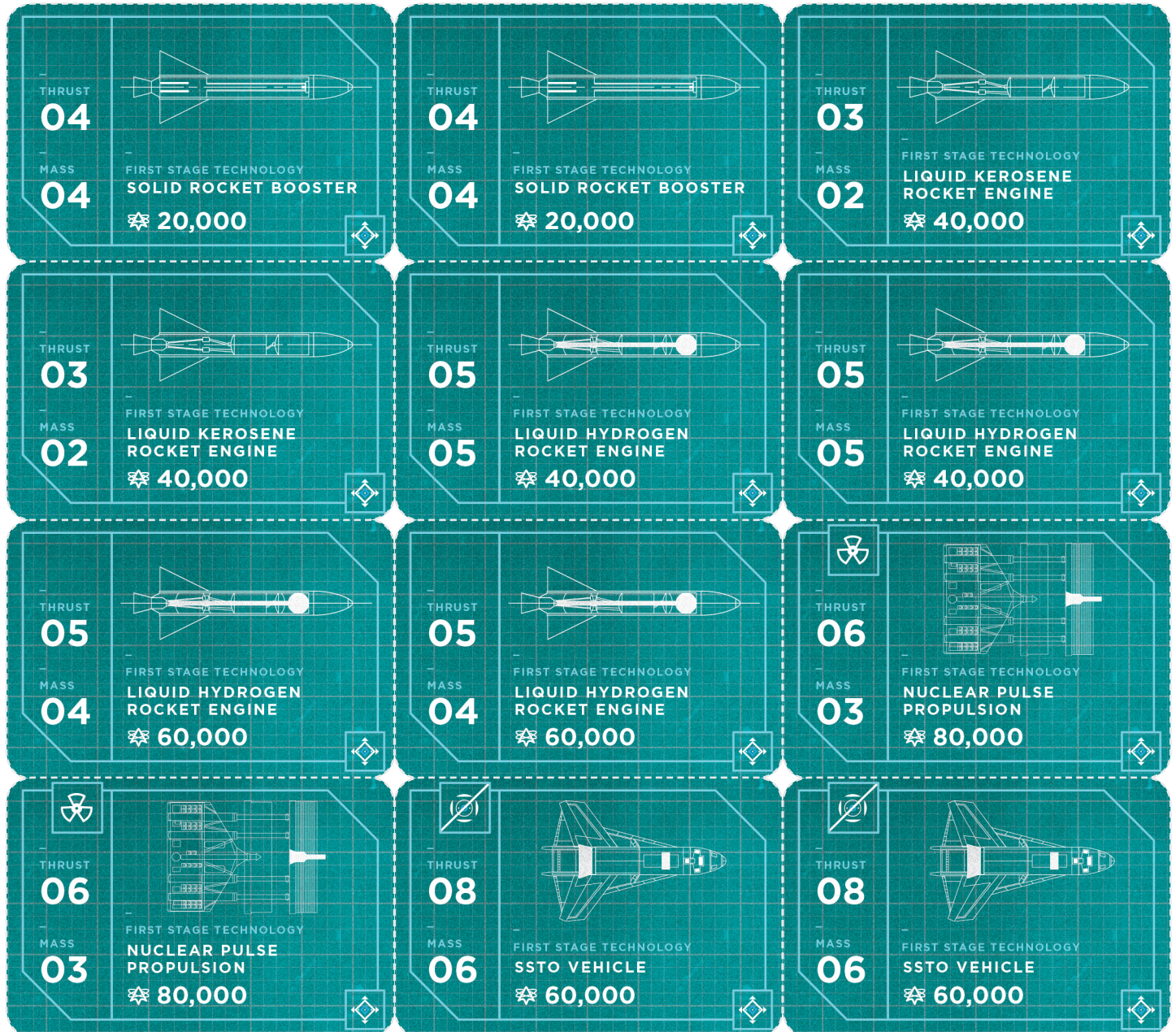


ENGINEER
OMI
KOSUKE

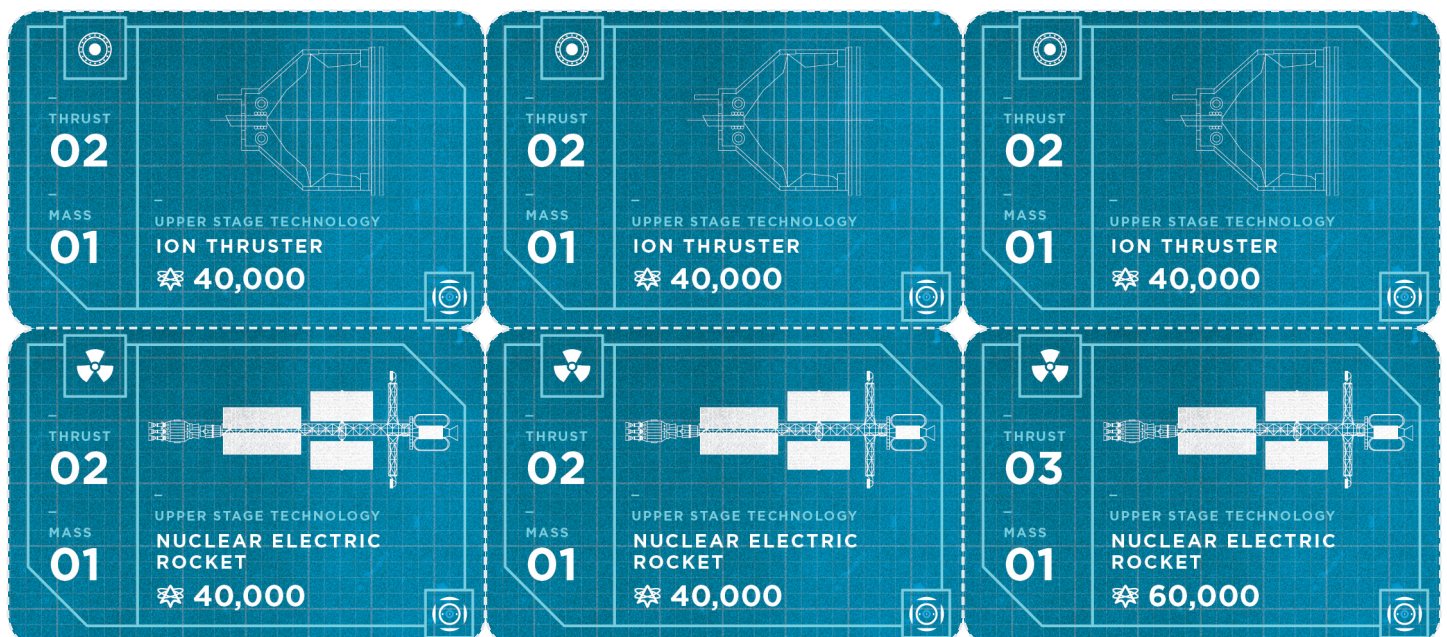
AUTHORITY

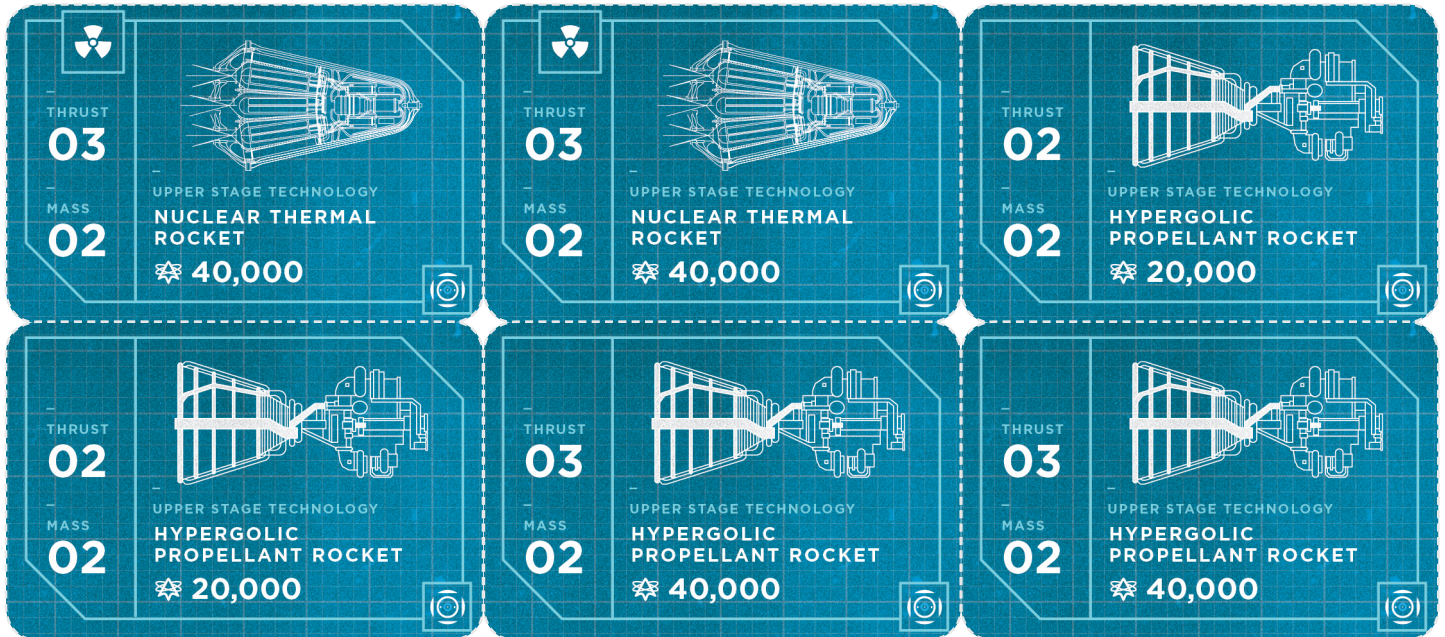
2.4

Remove 1 competitor's
Engineer from R&D
for this round

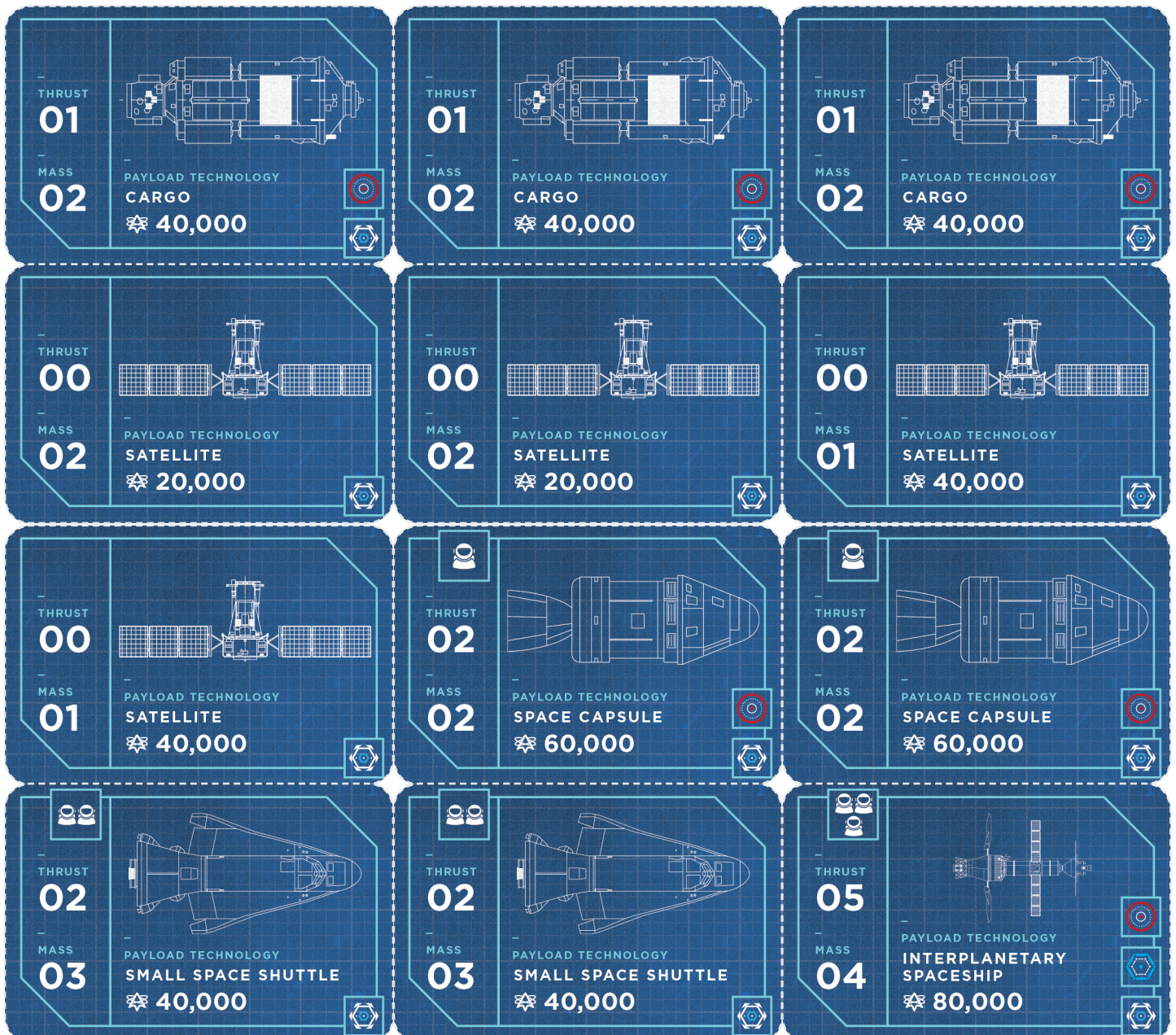


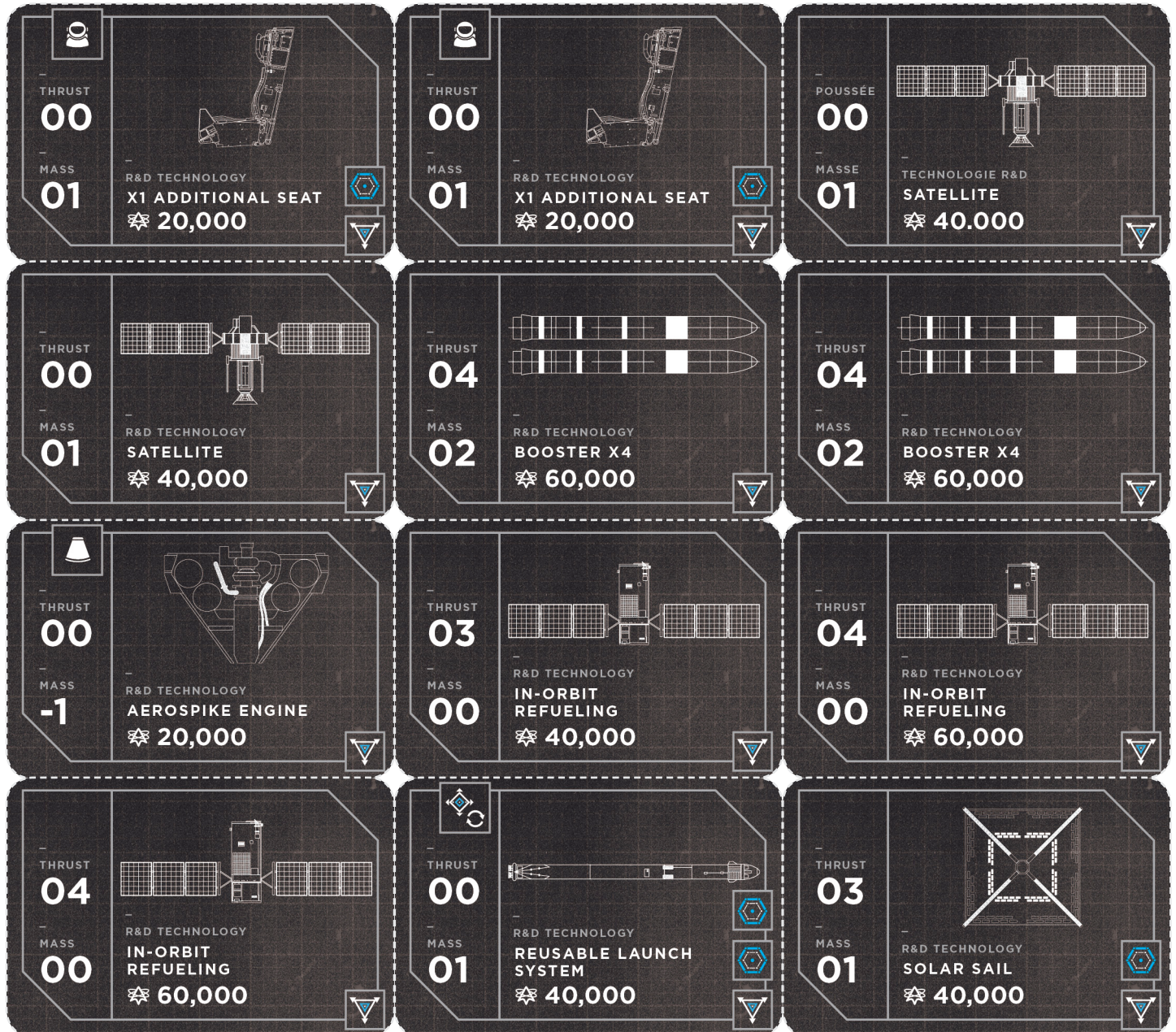
UPPER STAGE TECHNOLOGY CARDS





PAYLOAD TECHNOLOGY CARDS





Game Round

1. Planning phase
Place your Engineers on one of the following actions:
- A. Specialty
Apply each specialty in descending order of authority.

B. Construction
Build as much Technology as there are Engineer placed in Construction.

C. R&D
Draw as many R&D cards as there are Engineers on this action, but keep only one.

D. Design
Choose a technology from one of the 3 rivers.

2. Launch phase
Calculate the performance of your rocket (see back page) and roll the dice to assess the success of your launch.
3. Administration phase
- A. Collection of quarterly earnings
Receive your earnings for the quarter shown on your Director card.

B. Fundraising from investors
If an Investor's goal is met, receive the funds.

C. Director's action
Perform one of your Director's 4 actions
 - Recruit an Engineer for ¥40,000
 - Sell Technology cards
 - Activate the Director's Specialty (1 time in the game)
 - Activate the intervention of your Nation

Thrust	33-36	4.5	3.6	2.8	2.1	1.7	1.4
	29-32	4.0	3.2	2.5	1.9	1.5	1.3
	25-28	3.5	2.8	2.2	1.6	1.3	1.1
	21-24	3.0	2.4	1.8	1.4	1.1	1.0
	17-20	2.5	2.0	1.5	1.2	1.0	0.8
	13-16	2.0	1.6	1.2	0.9	0.8	0.6
	9-12	1.5	1.2	0.9	0.7	0.6	0.5
	7-8						25-28
							Mass

Fig.1 - Rocket performance

Performance	3.0-3.9	3	4	4	4	4	4
	2.5-2.9	4	5	5	5	5	5
	2.0-2.4	5	6	6	6	6	
	1.7-1.9	5	6	6	6		
	1.4-1.6	6	7	7			
	1.2-1.3	6	7				
	1-1.1	7					
		LEO	GEO	Moon	Lagrangian Point	Asteroid	Mars
							Distance

Fig.2 - Launch probabilities

BLOCK 1

MAXIMUM 08

BLOCK 2

BLOCK 3

SPECIALTY

ENGINEER

CONSTRUCTION

ENGINEER

R&D

ENGINEER

DESIGN

ENGINEER

Print as many player boards as there are players

