

Notes from Hades

Welcome to another edition of S.O.B. The last couple of weeks have been pretty low key, although I did have back-to-back trips in early January. The first was to St. Petersburg, Florida, for a conference of the information technology organization of DCMA (the government agency where I work). I got back from there, had a day to recover, and then flew out to Paris for another trip. Both trips went well, but I'm glad that I don't have another for a while.

Beyond that, not much to report. I have been contemplating adding one more game (to bring the total up to 12), because I fairly consistently have between half and three-quarters of a page to fill after everything else is done. The space constraint does tend to limit the choices somewhat, but I believe. Sand Flea (the Dune game) is a possibility, but it is right on the upper edge of the space requirement. On the other hand, it is the game that has been waiting the longest. Another possibility is Gaspode (the Puerto Rico game), which I think would easily fit within the space requirement. Let me know which you would prefer.

The next deadline is **Tuesday, March 18 at 5:00 p.m. Pacific Time. Please do not call or fax orders after 10:00 p.m. Pacific time.** My wife and I tend to retire early. Also, if you want to fax in orders, call first. We hang up on unannounced faxes.

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Game Openings

Greyhound. Age of Renaissance. This game will start when Dog Chow finishes and will use the European rules and alternate map. Have Michael Longdin, Bob Robles, Dave Partridge, Steve Koehler, Dave Hood, and Robert Koehler. This game is full. **Starts this issue!**

Sand Flea. Dune. We will use the optional Lansraad, Ixians, and Bene Tleilaxu

powers. Have Kevin Wilson, Bob Robles, Paul Bolduc, Michael Longdin, Ward Narhi, and Gina Teh, will take up to 1 more if one player plays the Bene Tleilaxu.

Frontier Dog. Gunslinger .Scenario to be determined. Have Paul Bolduc, Chris Geggus, Mike Scott, and Andy Lewis, will take up to 3 more.

Pateel. Kremlin. Will start after Flea Collar ends. Have Ward Narhi, Mike Scott, Bill Scharf, Bob Robles, Pasquale Giovine, and Gina Teh. This game is full.

Hunter. Silverton. Will start after Terrier ends. Have Dave Partridge, Michael Longdin, Ward Narhi, Cary Nichols, Bill Scharf, and Dave Hooton. This game is full.

Procyon. Merchant of Venus. This game will start when Sirius ends. Have Dave Partridge, Bob Robles, Chris Geggus, Gina the, and Dennis Cain. Will take up to 1 more.

Robover. Robo Rally. Have Dave Partridge, Bill Scharf, Chris Geggus, Dave Hooton, Gina the, Ward Narhi, Michael Longdin, and Chris Geggus. This game is full.

Gaspode. Puerto Rico. Have Andy York, Tom Howell, Chris Geggus, Dave Partridge, and Andy Lewis. This game is full.

Wish List

History of the World. Have Chris Geggus, Dave Partridge, and Gina Teh, will take up to 4 more.

Industrial Waste. Have Andy York, will take up to 3 more.

Outpost. Will start after Hound ends. Have Andy York, Cary Nighols, and Dave Partridge, take up to 7 more.

Machiavelli. This game will start after the next Machiavelli game ends. Have Ward Narhi, Bob Robles, and Pasquale Giovine, will take up to 5 more.

Machiavelli. Gunboat. This game will start after the second Machiavelli game ends. Have 4, will take up to 4 more. You are signed up: .

Power Grid. Have Andy York, Michael Longdin, and Dave Partridge, will take up to 3 more.

In general, game ownership is recommended, but not required.

Note that a subscription to S.O.B. is not required to play in a game run by flier, but that a game fee will be charged to non-subbers.

S.O.B. is a zine of unusual postal games, and anything else I feel like including. Your publisher is:

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Subscriptions cost \$2.00 per issue (\$3.00 overseas).

Howling at the Moon The S.O.B. Letter Column

No letters received this issue.

Dog Park

Miller Number 20077Apw10

Advanced Rules, Natural Disasters, Special Military Units, Moneylenders, Conquest, Gray Press, Ultimate Victory Deadline for Summer 1051 2/5, Tuesday

Byzantium moves its focus to the Balkans, as does Venice. The Muslims and the Normans go island hopping. Pisa, the Pope and the Holy Roman Emperor all deal with those pesky independent garrisons.

Outstanding Loans

Spring 1053: 9 ducats from the Muslims (6 borrowed)

Orders

BYZANTINES (Giovine): A Bari to OTRANTO, A Otranto to HERZEGOVINA, F LOWER ADRIATIC transports A Otranto to Herzegovina

HOLY ROMAN EMPIRE (Partridge): A MONTFERRAT besieges, A MANTUA besieges, A TRENT besieges

MUSLIMS (Robles): A PALERMO convert to G, A MESSINA convert to G, F Western Mediterranean to SARDINIA

NORMANS (Horsley): A Capua to CORSICA, F TYRRHENIAN SEA transports A Capua to Corsica

PAPACY (Roalstad): A FLORENCE besieges, A URBINO supports A Florence, A Perugia to SPOLETO

PISA (Scott):

A Modena to GENOA, A SIENNA besieges, F LIGURIAN SEA supports A Modena to Genoa

VENICE (Wilson):

A FERRARA besieges, A Friuli to CROATIA, F UPPER ADRIATIC transports A Friuli to Croatia

LOMBARDS:

A ANCONA holds

Press

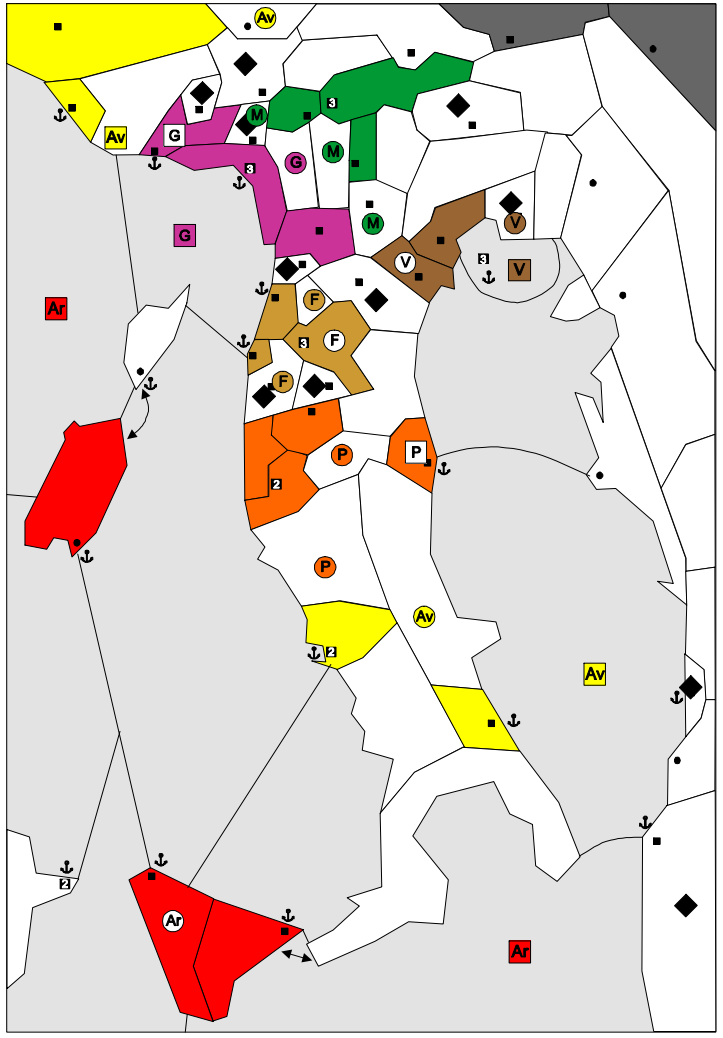
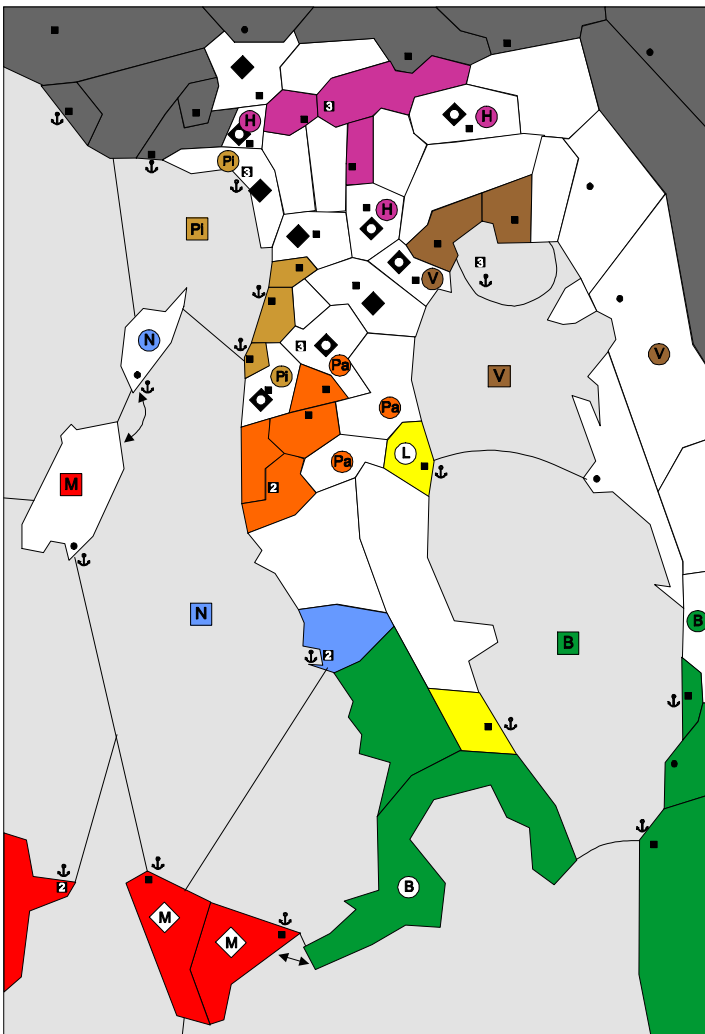
Muslims – Normans: Sorry for the lack of communications. Well, let's see how this plays out between the two of us.

Pisa – Pope: your messengers did not get here, we never saw them.... if you don't find them in the taverns of Florence, maybe they went south to fight off the Normans..

Pisa – Holy Roman Empire: I'll take Genoa, and later Modena, but leave you the other areas to the north of them...

Dog Park

Barking Up the Wrong Tree



○ Army □ Fleet ◇ Garrison ◆ Autonomous Garrison ◇ Besieged Garrison

○ Army □ Fleet ◇ Garrison ◆ Autonomous Garrison ◇ Besieged Garrison

Barking Up the Wrong Tree

Miller Number 2007Bpw10

**Advanced Rules, Natural Disasters, Special Military Units, Conquest, Gray Press, Ultimate Victory
Deadline for Summer 1250 3/18, Wednesday**

The Pope makes a strong southward move and Aragon and Avignon both move toward the Balkans. Milan and Genoa appear to be on a collision course, while Florence and Venice acutally collide.

Orders

ARAGON (Mercer): A PALERMO holds, F Messina to IONIAN SEA, F Sardinia to GULF OF LIONS

AVIGNON (Nichols): A Avignon to SWISS, A Naples to AQUILA, F Marseilles to PROVENCE, F Bari to LOWER ADRIATIC

FLORENCE (Whyte): A FLORENCE to Bologna, A Pisa to PISTOIA, A Piombino to SIENNA

GENOA (Scott): A Modena to FORNOVA, F Genoa to LIGURIAN SEA, F SAVOY supports F Genoa to Ligurian Sea

MILAN (Renken): A Milan to PARMA, A Pavia to MONTFERRAT, A Cremona to MANTUA

PAPACY (Robles): A Rome to CAPUA, A PERUGIA to Spoleto, F ANCONA to Upper Adriatic

VENICE (Partridge): A Padua to TREVISO, A FERRARA to Bologna, F VENICE to Upper Adriatic

Notes

Thanks to Steve Koehler for his unused standby orders.

Summer 1250 Plague

Good Year – No Plague!

Press

Aragon: To the courts of Florence and Genoa, and the Holy Father in Rome, greetings and our warm regards.

Aragon: To the French in Avignon, we would prefer that GOL be left free of warships. If we have bounced there, let it remain open to merchants but free of ships of war. If we find ourselves in possession we will withdraw in the summer, and suggest that you do not pursue.

Genoa – All: Peace to all, and watch out! Of, not for me, that other guy behind you...

Dog Chow

Age of Renaissance

End of Game Statements

Paul Bolduc (Barcelona) Despite playing over a dozen games over the years, this is my first win ever in AoR -- and I nearly got beat by Koehler's Genoa. I got off to a good start by cashing in the Cloth/Wine card for \$45 on Turn 2 and leveraged that cash advantage to a comfy lead, only to have Steve pull off a \$200+ payoff, which made things competitive again. And Cary was coming up fast too. Thanks for all.

Cary Nichols (Hamburg) Great going, Paul! Smooth and steady all the way.

Bob Robles (London) Tough game and congratulations to Paul for a masterful game. I still have alot to learn.

Steve Koehler (Genoa) Congratulations Paul, you played a very good game.

Whatever hopes I had were dashed in turn six when Hamburg played Civil War on me. Hamburg played other cards in favor of the leader later as well. I don't know if I did something to annoy you, Cary, but you certainly seemed intent on helping Barcelona win.

I too received some benefit from some questionable card play. Dennis played several cards that seemed to benefit me more than himself and others. So I am certainly not saying I would have won this game had it not been for Cary's play.

It's my firm belief that one should not play a card unless it means you will benefit as much as anyone else, with the exception of when you make a deal with someone which benefits you in other ways. Speaking of deals, I tried on several occasions to negotiate with other players. Most never responded.

All in all, a well-played game, especially by Paul, marred by some thoughtless play that decreased my enjoyment of it. Sorry if this upsets anyone.

Sirius

Merchant of Venus

Turns 29.4 to 31.4

Turns 31.5 to 33.5 3/18, Tuesday

Turn 29

4th: **Dennis Cain (Niks)**

Space Revolver Rolls Used: 4 4 6 6

Grandport(p) – R – Y – R – NC6 – Y – B – R – A – R – Y10 – TeleGate 6 – B10 – Titan's Tower(p).

Buys Rock Videos for \$120 and a Yellow Drive for \$80. Receives \$20 in port commissions.

Space Howitzer Rolls Used: 4 5

Space Station Planet.

Buys 2 Space Spice for \$60.

5th: **Chris Geggus (Qossuth)**

Atlantis Rolls Used: 2 * 3

Cobbleport(s) – Cobbleport(o) – R – B – R – B.

Kormoran Rolls Used: 1 * 3

Multi-Generation Ship – NC1 – R – Y.

6th: **Bob Robles (Dell/Dells Without Names) Rolls Used: 1 6**

Wet Landing(s) – Wet Landing(o) – R – B – R – B – Y.

Turn 30

1st: **Andy Lewis (Humans/Mystery Machine 4) Rolls Used: 1 3 6**

Open Port – Y – B – R – B – Y – B – R – TeleGate 1 – TeleGate 6 – Y10.

2nd: **Dave Partridge (Whynoms)**

Venus-Orion Oligarch Merchante 4 4 (uses Auto Pilot)

Comfort Station(p) – B – (R) – B – (Y) – B – (R) – Galactic Base – NC4 – B30 – Space Station Planet.

Buys Shuttlestop for \$200 and picks up the Fare to 10..

ZOOM Rolls Used: 4 5 6 6

Terror Station(p) – Open Port – Titan's Tower(p) – B10 – TeleGate 6 – TeleGate 5 – R – A – Ice Station(p).

Sells Rock Videos for \$200 (from the cup: Megalith Paperweight at 9b).

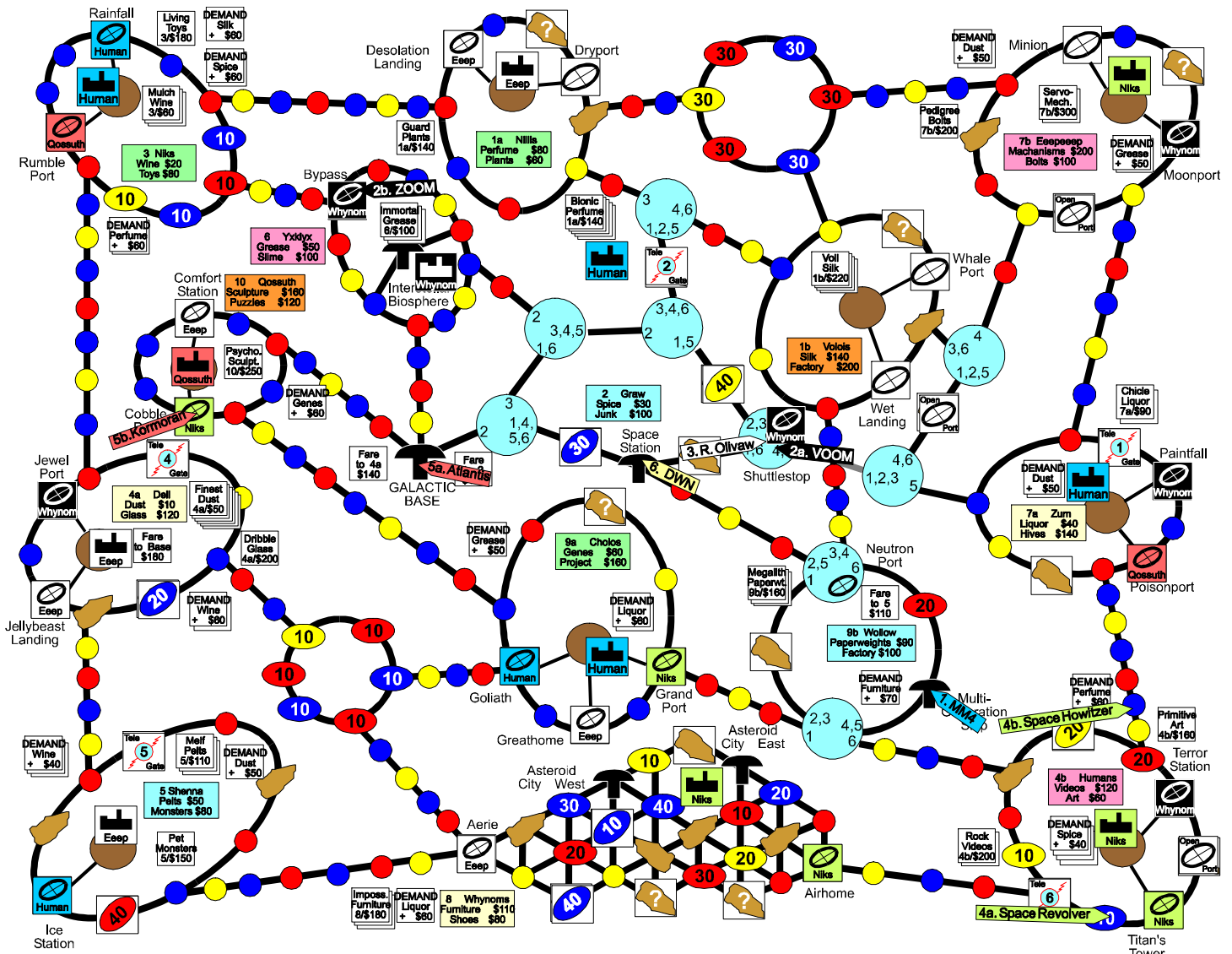
Sells Primitive Art for \$160 (from the cup: Demand for Furniture at 9b).

Buys 2 Melf Pelts for \$100. Mystery Machine gains \$46 in port commissions.

3rd: Paul Bolduc (Eepeeep/R. Olivaw)
Thunderbolt Greaselapper Rolls Used: 5 * 3
Greathome(p) – B – Grant Port(o) – R – Y – R – NC5 – Multi-Generation Ship – R20 – NC5 – R – Y – R – Space Station.
 Attempts to buy Shuttlestop, but it has already been purchased.

4th: Dennis Cain (Niks)
Space Revolver Rolls Used: 4 4 6 6
Titan's Tower(p) – Open Port – Terror Station(p) – R20 – Y – B – R – B – Y – B – R – Poisonport(p).
 Sells Rock Videos for \$200 (from the cup: Impossible Furniture at 8). Buys Chicle Liquor for \$40. Atlantis gains \$24 in port commissions.
Space Howitzer Rolls Used: 2 4
Space Station – A – NC4 – NC4 – Open Port – NC4 – (R) – (Y) – Open Port.

5th: Chris Geggus (Qossuth)
Atlantis Rolls Used: 1 * 3
B – (Y) – B – R – Galactic Base.
 Trades in Scout for \$30 credit and buys a Clipper for \$120.
Kormoran Rolls Used: 6 * 3
Y – R – Grand Port(p) – B – Greathome(p) – B – Goliath(p) – B – R – B – Y – B – R – B – Y – R – Cobble Port(p).
 Sells Chicle Liquor for \$90 (from the cup: Demand for Wine at 4a). Sells Megalith Paperweight for \$160 (from the cup: Immortal Grease at 6). Space Revolver gains \$25 in port commissions.
 6th: Bob Robles (Dell/Dells Without Names) Rolls Used: 2 3
Y – NC2 – R – Y – R – Space Station.
 Sells Voll Silk for \$220 (from the cup: Demand for Dust at 5).



Turn 31

1st: Andy Lewis (Humans/Mystery Machine 4) Rolls Used: 1 4 5
Y10 – R – A – R – B – Y – NC4 – Multi-Generation Ship.
 Sells Servo-Mechanism for \$300 (from the cup: Space Spice at 2). Buys Megalith Paperweight for \$90.
 2nd: Dave Partridge (Whynoms)
Venus-Orion Oligarch Merchantele 4 4 (uses Auto Pilot)
Space Station – A – Shuttlestop.
 Sells Psychotic Sculpture for \$250 (from the cup: Chicle Liquor at 7a). Sells Psychotic Sculpture for \$250 (from the cup: Impossible Furniture at 8).

Sells Psychotic Sculpture for \$250 (from the cup: Psychotic Sculpture at 10). Buys Glorious Junk for \$100 and 2 Space Spice for \$60. Mystery Machine gains \$50 in factory commissions and VOOM gains \$91 in port commissions.
ZOOM Rolls Used: 2 4 6 6
Ice Station(p) – A – R – TeleGate 5 – TeleGate 2 – NC2 – NC2 – R – B – R – Y – B – R – Bypass.
 Sells Melf Pelts for \$110 plus \$50 demand (from the cup: Demand for Spice at 4b and Megalith Paperweight at 9b). Sells Melf Pelts for \$110 (from the

cup: Chicle Liquor at 7a). Buys Immortal Grease for \$50 and picks up Fare to 4b. Gains \$32 in port commissions.

3rd: Paul Bolduc (Eepeeep/R. Olivaw)

Thunderbolt Greaselapper Rolls Used: 5 * 3

Space Station - A - Shuttlestop.

Sells Designer Genes for \$120 plus \$80 demand (from the cup: Voll Silk at 1b and Primitive Art at 4b). Sells Designer Genes for \$120 plus \$40 demand (from the cup: Demand for Liquor at 9a and Servo-Mechanism at 7b).

Currently available:

1a (Nillis): 5 Bionic Perfume, Guard Plants

1b (Volois): 4 Voll Silk

2 (Graw):

3 (Niks): 3 Mulch Wine, 1 Demand for Voll Silk (+\$60), 2 Demand for Space Spice (+\$60), 2 Demand for Bionic Perfume (+\$60), Living Toys

4a (Dell): Fare to Base (\$180), 6 Finest Dust, 2 Demand for Mulch Wine (+\$60), Dribble Glass

4b (Humans): 4 Demand for Space Spice (+\$40), 1 Demand for Bionic Perfume (+\$60), Primitive Art, 2 Rock Videos

5 (Shenna): 3 Demand for Mulch Wine (+\$50), 3 Melf Pelts, 1 Demand for Finest Dust (+\$50), Pet Monsters

6 (Yxklyx): 3 Immortal Grease

S.O.B.

VOOM gains \$36 in port commissions.

4th: Dennis Cain (Niks)

Space Revolver Rolls Used: 3 3 3 3

Poisonport(p) - R - B - Y - B - R - B - Y - R20 - TerrorStation(p) -

Open Port - Titan's Tower(p) - B10.

Space Howitzer Rolls Used: 4 4

Open Port - (Y) - B - (R) - B - (Y) - B - (R) - B - (Y) - A - (R) - B - (Y) - B - (R) - B.

7a (Zum): 2 Demand for Finest Dust (+\$50), 2 Chicle Liquor

7b (Eepeeep): 2 Demand for Immortal Grease (+\$50), 2 Demand for Finest Dust (+\$50), 1 Servo-Mechanism, Pedigree Bolts

8 (Whynoms): 1 Demand for Chicle Liquor (+\$60), 3 Impossible Furniture

9a (Cholos): 1 Demand for Immortal Grease (+\$50), 2 Demand for Chicle Liquor (+\$60)

9b (Wollow): 3 Megalith Paperweight, Fare to 5 (\$110), 1 Demand for Impossible Furniture (+\$70)

10 (Qossuth): 1 Demand for Designer Genes (+\$60), 1 Psychotic Sculpture

Base: Fare to 4a (\$140), Fare to 2 (\$160)

1. Mystery Machine 4 **\$2194**
Normal Scout
32: 2 3 4//33: 1 1 3

Hold1 Servo-Mech. 7b/\$300	Hold2 Megalith Paperwt. 9b/\$160	Hull Shield (\$60)
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Graw \$200	Niks \$200	
Zum \$200	Goliath \$200	
Cholos \$200	Rainfall \$200	Ice Station \$200

2a. VOOM **\$3310**
Fast Freighter
32: 4 5//33: 2 4 (Use 1 x 2)

Hold1 Space Spice 2/\$80	Hold2 Space Spice 2/\$80	Hold3 Glorious Junk 2/\$200	Hull RELIC Auto Pilot 4 \$80
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Hold4
Hold5
Comb. Drive (\$300)

Fare to 10 \$120

Jewelport \$200	Bypass \$200	Yxklyx \$200	Moonport \$200
Terror Station \$200	Paintfall \$200	Shuttlestop \$200	

2b. ZOOM
Fast Clipper
32: 1 6 6//33: 4 4 4 (Double 1)

Hold1 Immortal Grease 6/\$100	Hold2 Fare to 4b \$120	Hull
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3. R. Olivaw **\$1789**
Rocket Freighter
32: 3 3//33: 1 2 (Use 1 * 3)

Hold1	Hold2	Hold3	Hull Shield (\$60) RELIC Yellow Drive \$80
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Hold4

Dell \$200	Aerie \$200	Jellybeast Landing \$200
Greathome \$200	Nillis \$100	Shenna \$100
Comfort Station \$200	Desolation Landing \$200	

4a. Space Revolver **\$833**
Sports Clipper
32: 1 3 5 6//33: 3 4 4 6 (Use 2*)

Hold1 Chicle Liquor 7a/\$90	Hold2 Fare to Base \$140	Hull Shield (\$60)
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Cobble Port \$200

Yellow Drive (\$80)

Airhome \$200

Eepeeep \$100	Human \$100	Whynoms \$100
Grand Port \$200	Titan's Tower \$200	

4b. Space Howitzer
Sport Freighter
32: 1 2 4//33: 3 5 6 (Use 2)

Hold1 Space Spice 2/\$80	Hold2 Space Spice 2/\$80	Hold3 Space Spice 2/\$80	Hull
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Hold4
Red Drive (\$120)

Hold5
Yellow Drive (\$80)

5a. Atlantis **\$921**
Torch Clipper
31: 6/32: 1//33: 5 (Times 4)

Hold1 Psychotic Sculpture 10/\$250	Hold2 Infinite Puzzles 10/\$250	Hull Yellow Drive (\$80) Shield (\$60)
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Rumble Port \$200	Poisonport \$200	Qossuth \$200
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5b. Kormoran
Torch Transport
31: 4//32: 2//33: 3 (Times 3)

Hold1	Hold2	Hold3 Fare to Base \$150	Hull Eq.
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6. Dells Without Names **\$540**
Scow Scout
31: 2 5 5 6//32: 3 4 5 5 (Use 2)

Hold1 Voll Silk 1b/\$220	Hold2	Hull Relic Shield (\$60) RELIC Gate Lock \$100
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Tb \$100

Doberman
Turn 8a
Turn 8b due 3/18, Tuesday

Available Cards

Set 1	Set 2	Set 3	Set 4	Set 5
Raw Materials	Growth	Order	Raw Materials	Order
Growth	Innovation	Hiring/Firing	Order	Raw Materials
Waste Removal	Order	Raw Materials	Waste Disposal	Innovation

GOO takes set 2

100%Trash takes set 3

BIBCO takes set 4

PIT takes set 5

The Players

Player	Company Name	Play Order	Money	Loans	Raw Material Supply	Growth	Co-workers	Saved Card
Michael Longdin	100%Trash	2	\$9	20	4	16	5	
Dave Partridge	BIBCO	3	\$23	0	5	16	5	Hiring/Firing
Richard Weiss	PIT	4	\$25	0	1	19	4	Growth
Eric Brosius	GOO	1	\$24	0	1	15	4	Raw Materials

GOO stands for General Olfactory Organization. BIBCO stands for Big Industry Buying Congressmen Outright

Player	Rationalization	Raw Materials	Waste Reduction	Waste Disposal	Victory Points
Michael Longdin	5/1	1/15	5/1	15	17
Dave Partridge	5/1	4/3	2/10	13	41
Richard Weiss	4/3	5/1	5/1	6	36
Eric Brosius	4/3	4/3	2/10	5	43

Cards

100%Trash	BIBCO	PIT	GOO
Order	Raw Materials	Order	Growth
Hiring/Firing	Order	Raw Materials	Innovation
Raw Materials	Waste Disposal	Innovation	Order

Discards

Order

Flea Collar

Kremlin

Turn 4 Cure through Health
Turn 4 Funeral Commission through Parade, 2/5, Tuesday

Funeral Commission

REDS declares 7 IP on Satin. Satin nominates Mischif. Mischif and Satin must vote in favor. Wasolin also votes in favor, while Putschnik votes against. Mischif becomes the new Party Chief.

Replacement Phase

Mischif moves Wasolin to KGB Head, promotes Satin to Defense Minister, and Q to Ideology. Mischif ages to 79. Zenjarplan advances to Foreign Minister by age. Wasolin promotes U to Ideology Chief. Wasolin ages to 58. W advances to Economy and X to Sport by age. Satin promotes E and L to candidates and ages to 64. B, D, and G advance to candidates by age.

Rehabilitation Phase

None

Parade Phase

Mischif attempts to wave (dr = 11, fails) and ages to 81.

Politburo

Office	Politician	Condition	Influence
Party Chief	Anatol Mischif (I)	81, ++	5 (MLI) , 4 (TCC)
KGB Head	Viktor Wasolin (Z)	58	11+ (MLI)
Foreign	Tigran Zenjarplan (Q)	60, strong	
Defense	Oleg Satin (O)	64, +	11+ (REDS)
Ideology	Wassily Protzky (U)	56, weak	
Industry	Ulan Putschnik (Y)	59, ?	4 (LWT), 9 (HLM), 10 (REDS)
Economy	Leonid Bungaloff (W)	54	
Sport	Boris Badenuff (X)	53, strong	

Politicians in **bold** are in the sanatorium.

Candidates: B (83 +, **6 (KGB)**, 2 (LWT), 5 (HLM)), D, E, G, L

People: H, J, M, N, P, R, S (68, +)

Siberia: C (81 +), K (68 +), T

Kremlin Wall: A, G, F, V

PlayersIntrigue Cards

Player	Faction Name
Bob Robles	Hard Line Mencheviks
Brendan Whyte	Left-wing Trendies
Pasquale Giovine	Marxist-Leninist Integralists
Mike Scott	The California Connection
Chris Geggus	King's Gambit for Bishops (KGB)
Cary Nichols	Re-Education Deployment Society (REDS)

Undeclared Influence**Terrier
Silverton****Turn 9, Phases IV- VI and Turn 10, Phases I-III
Turn 10, Phases IV- VI and Turn 11, Phases I-III, 3/18, Wednesday
Turn 9**Operations

Brown (Partridge) no operations. Gains \$130 in passenger revenue.

Blue (Bolduc) operates #88 (\$50, 5 coal). Delivers 3 coal to Denver for \$420. Gains \$20 in passenger revenue.

Red (Scharf) operates #102 (\$40, depletes), #108 (\$40, 1 copper), and #101 (\$20, 5 silver). Delivers 1 copper from Lordsburg to El Paso for \$400. Gains \$60 passenger revenue. Buys a 24 train for \$200.

Aqua (Lewis) operates #35 (\$50, 2 silver), #68 (\$20, 3 coal), #73 (\$20, 4 coal), and #74 (\$20, 3 coal). Delivers 4 coal from Schofield to Salt Lake City for \$400. Gains \$160 in passenger revenue. Buys a 42 train for \$320.

Green (Longdin) operates #92 (\$40, 3 coal). Delivers 4 coal from Raton to Denver for \$560. Gains \$380 in passenger revenue.

Orange (Hooton) operates #46 (\$40, 1 silver) and #119 (\$40, 3 coal). Delivers 8 coal from Farmington to Santa Fe for \$960. Gains \$90 in passenger revenue.

Determine Price Changes

Gold: +2 to \$350

Copper: Remains at \$400

Silver: +2 to \$160

	Denver	Salt Lake City	Pueblo	Santa Fe	El Paso
Lumber:	Remains at \$200	Remains at \$300	Remains at \$200	-2 to \$80	-2 to \$120
Coal:	Remains at \$140	Remains at \$100	+3 to \$80	-1 to \$100	Remains at \$140

Turn 10Move Prospectors and Surveyors

Brown (Partridge) surveys Denver to Georgetown and prospects #30.

Blue (Bolduc) surveys Platte to Fairplay and Glenwood Springs to Aspen, prospects #40.

Red (Scharf) surveys Butte Junction to Hillsboro and prospects #126.

Aqua (Lewis) surveys Rangely to Elk Springs and Rifle to Meeker, prospects passenger line 16.

Green (Longdin) surveys Leadville to Aspen, prospects #40.

Orange (Hooton) surveys Dolores to Rico and Socorro to Butte Junction, prospects #122 and #100

Dispute Resolution

Blue and Green have a dispute over #40. Blue = 8, Green = 7. Blue wins and prospector goes to P+1. Brown spends \$240, Blue spends \$480, Red spends \$220, Aqua spends \$665, Green spends \$360, and Orange spends \$420.

The Players

Player	Color	Starting Location	Money	Trains	Snowplows	Personnel
Dave Partridge	Brown	Denver	\$30	9, 15		S+1, S, P+1
Paul Bolduc	Blue	Denver	\$25	9, 15		S, S+1, P+1
Bill Scharf	Red	El Paso	\$685	9, 24		S, P
Andy Lewis	Aqua	Salt Lake City	\$2260	9, 15, 42		S, S, P
Michael Longdin	Green	Pueblo	\$1230	9, 15	+2	S+2, S, P
Dave Hooton	Orange	Santa Fe	\$670	9, 15, 24		S, S, P, P

Purchased Claims

#	City	Owner	Type	Goods	Operation
48	Ouray	Brown	Silver	4	\$40
30	Georgetown	Brown	Gold	N	\$30
32	Fairplay	Blue	Gold	1	Depleted
88	Walsenburg	Blue	Coal	2	\$50
80	Aspen	Blue	Coal	N	\$30
40	Aspen	Blue	Silver	N	\$40
105	Silver City	Red	Silver	1	Depleted
98	Pinos Altos	Red	Gold	2	Depleted

#	City	Owner	Type	Goods	Operation
102	Hillsboro	Red	Silver	6	Depleted
108	Lordsburg	Red	Copper	4	\$40
101	Lake Valley	Red	Silver	5	\$20
126	Santa Rita	Red	Coal	N	\$30
36	Eureka	Aqua	Silver	1	Depleted
67	Coalville	Aqua	Coal	1	Depleted
35	Heber City	Aqua	Silver	3	\$50
37	Eureka	Aqua	Silver	2	Depleted
68	Scofield	Aqua	Coal	7	\$20

#	City	Owner	Type	Goods	Operation
73	Hiawatha	Aqua	Coal	11	\$20
74	Elk Springs	Aqua	Coal	6	\$20
92	Raton	Green	Coal	8	\$40
81	Crested Butte	Green	Coal	9	\$40
47	Ouray	Green	Silver	2	Depleted
119	Farmington	Orange	Coal	1	\$40
113	Porter	Orange	Lumber	2	\$30
128	South Fork	Orange	Silver	N	\$40
65	El Vado	Orange	Lumber	N	\$30
63	Lumberton	Orange	Lumber	2	\$50
46	Telluride	Orange	Silver	1	\$40
51	Silverton	Orange	Silver	N	\$30
100	White Oaks	Orange	Gold	N	\$40
122	Lee Ranch West	Orange	Coal	N	\$20

Purchased Passenger Lines

#	Type	Route	Payoff	Owner	Notes
3	A	Denver – Colorado Springs	\$50	Brown	
5	A	Denver – Pueblo	\$80	Brown	
1	A	Denver – Boulder	\$20	Blue	
4	A	El Paso – Deming	\$60	Red	
2	A	Salt Lake City – Provo	\$20	Aqua	
11	B	Salt Lake City – Grand Jct.	\$140	Aqua	Discard when 20 is taken. Good for \$140 toward card 20 or 21
16	B	Salt Lake City – Grand Jct.	\$250	Aqua	Discard when 22 is taken. Good for \$250 toward card 22
9	B	Denver – Leadville	\$120	Green	
8	A	Denver – Leadville	\$260	Green	Discard after 3 more Leadville depletions
6	A	Santa Fe – Albuquerque	\$90	Orange	

Available Claims

#	City	Type	Claim	Operation
82	Crested Butte	Coal	\$60	\$20
71	Sunnyside	Coal	\$100	\$20
123	Gallup	Coal	\$60	\$40
99	White Oaks	Gold	\$100	\$50
114	McGaffey	Lumber	\$40	\$30
103	Hillsboro	Silver	\$60	\$30
125	Capitan	Coal	\$80	\$20
33	Silverton	Gold	\$160	\$50

Available Passenger Lines

#	Type	Route	Payoff	Cost	Notes
12	B	Pueblo – Grand Jct.	\$150	\$310	Discard when 20 is taken. Good for \$150 toward card 20 or 21
15	B	Denver – Grand Jct.	\$270	\$435	Discard when 22 is taken. Good for \$270 toward card 22
22	C	Denver – Salt Lake City	\$800	\$110 0	
24	C	Denver – El Paso	\$1000	\$138 0	
19	C	Salt Lake City – Albuquerque	\$600	\$975	
10	B	Denver – Aspen	\$130	\$250	
13	B	El Paso – Santa Fe	\$140	\$320	
7	A	Pueblo – Santa Fe	\$120	\$280	

Available Trains

Type	# Available	Cost
9	0	\$80
15	1	\$120
24	6	\$200
42	7	\$320

Available Snowplows

Type	# Available	Cost
Die +2	2	\$40
Die +3	4	\$80
Die +4	5	\$140

Hound

Turn 8

Deadline Turn 9, 3/18, Tuesday

Commander Actions

Roobie-Roo buys a water factory (Or1, Or3, Wa7, Wa9) and two population factors (Or2, Wa9).

BORG opens the bidding on Scientists at 41 and Brosarium gets it for 54 (Wa8, Wa8, Wa8, MWa). Opens the bidding on Robots at 51 and gets it (Or2, Or4, Wa5, Wa7, Wa10, Ti11, Ti12).

Miles from Nowhere buys a titanium factory (Or1, Wa8, Ti10, Ti11) and a population factor (Wa6, Wa7)

Brosarium passes.

FEARLESS opens the bidding on Heavy Equipment at 30 and gets it (Or1, Wa6, Wa7, Wa7, Wa9). Opens the bidding on a Warehouse at 25 and gets it (Wa5, Wa6, Wa9).

Golden Orb opens the bidding on a Nodule at 25 and gets it for 36 (Or1, Or1, Or2, Or2, Wa8, Wa8, Wa9, HE discount).

Little Green Men buys a population factor (Or2, Wa9).

HBDC buys a titanium factory (Or4, Wa6, Wa8, Ti12) and moves a population factor from the ore factory to man it.

Bartertown X buys a water factory (Wa6, Wa7, Wa7) and moves a population factor from the ore factory to man it.

Scharfpost buys a population factor (Or2, Or3, Wa5).

The Players

	Outpost Name	Commander	Factories	Upgrades	VP
1	Roobie-Roo	Andy Lewis	OrF, OrF, WaF, WaF, WaF, WaF, P	HE, No, Wa, Ec	15
2	BORG	Dave Hooton	OrF, OrF, WaF, WaF, TiF, TiF	HE, No, Wa, Ro	15
3	Miles from Nowhere	Michael Longdin	OrF, OrF, WaF, WaF, TiF, TiF, TiF	HE, No	13
4	Brosiarium	Eric Brosius	OrF, OrF, WaF, WaF, WaF, WaF, WaF, WaF	No, Sc	11
5	FEARLESS	Michael Lowrey	OrF, OrF, WaF, WaF, WaF, WaF, WaF	No, HE, Wa	11
6	Golden Orb	Cary Nichols	OrF, OrF, WaF, WaF	2DL, HE, Wa, No	10
7	HBDC	Kevin Wilson	OrF, OrF, WaF, WaF, WaF, TiF, TiF	HE, Wa	9
8	Little Green Men	Dave Partridge	OrF, OrF, WaF, WaF, WaF, WaF, WaF, WaF	No	9
9	Scharfpost	Bill Scharf	OrF, OrF, WaF, P	3DL, Wa	7
10	Bartertown X	Andy York	OrF, OrF, WaF, WaF, WaF, WaF, WaF	2DL	7

BORG is Basic Orbital Research Group. HBDC is Heavenly Bodies Development Corporation. FEARLESS is Forward Extraction and Resource Location Exoterrestrial Space Services

Available Upgrades

Income

New Arrival: Scientists, Outpost, Orbital Lab, Orbital Lab, Scientists

Upgrade	Minimum Bid	Available	Not Yet Delivered
Warehouse (Wa)	25	1	0
Heavy Equipment (HE)	30	1	0
Nodule (No)	25	0	0
Scientists (Sc)	40	2	4
Orbital Lab (OL)	50	2	5
Robots (Ro)	50	1	5
Laboratory (La)	80	1	6
Ecoplants (Ec)	30	0	6
Outpost (Ou)	100	2	5

Brosiarium took a Mega Water card. Little Green Men discards Or2, Wa5.

Bulldog

Turns 3.3 to 4.3

Deadline Turn 4.4 to 5.4, 3/18 Tuesday

Turn 3

Michael rolls an 8. Mike gains 2 brick, Michael and Dave H. each gain 1 brick, and Dave P. and Chris each gain one ore. Michael trades 4 brick at the brick port for 1 ore and 1 lumber, and builds a road from C14 to C13.

Andy rolls an 8. Mike gains 2 brick, Michael and Dave H. each gain 1 brick, and Dave P. and Chris each gain one ore. Passes.

Dave H. rolls a 7. Mike discards 6 brick. Moves the Pirate to D6-E6 and steals a brick from Andy. Trades a brick and a lumber to Chris in exchange for a wool and

an ore. Builds a ship from D17 to E17 (discovers ocean) and moves the ship at D18 to D19 to E17 to E18 (discovers Forest 11 and gains 1 lumber).

Chris rolls an 8. Mike gains 2 brick, Michael and Dave H. each gain 1 brick, and Dave P. and Chris each gain one ore. Michael trades 4 brick at the brick port for 1 ore and 1 lumber. Trades 4 ore at the ore port for 1 wool and 1 grain, and builds a settlement at B15.

Turn 4

Mike rolls a 9. Dave P., Michael, Andy, and Chris each gain 1 brick. Trades 4 brick for 1 lumber, and trades 2 grain to Dave P. for 2 ore and 1 brick, and builds a road from E11 to E10.

Dave P. rolls a 10. Mike gains 1 grain and Andy and Chris each gain 1 ore. Passes.

Michael rolls a 5. Andy gains 2 wool and Chris gains 2 grain. Passes.

Open Trades

Michael offers 1 brick for 1 grain.

Turn 4 Rolls

Andy 4 Dave H. 11 Chris 9

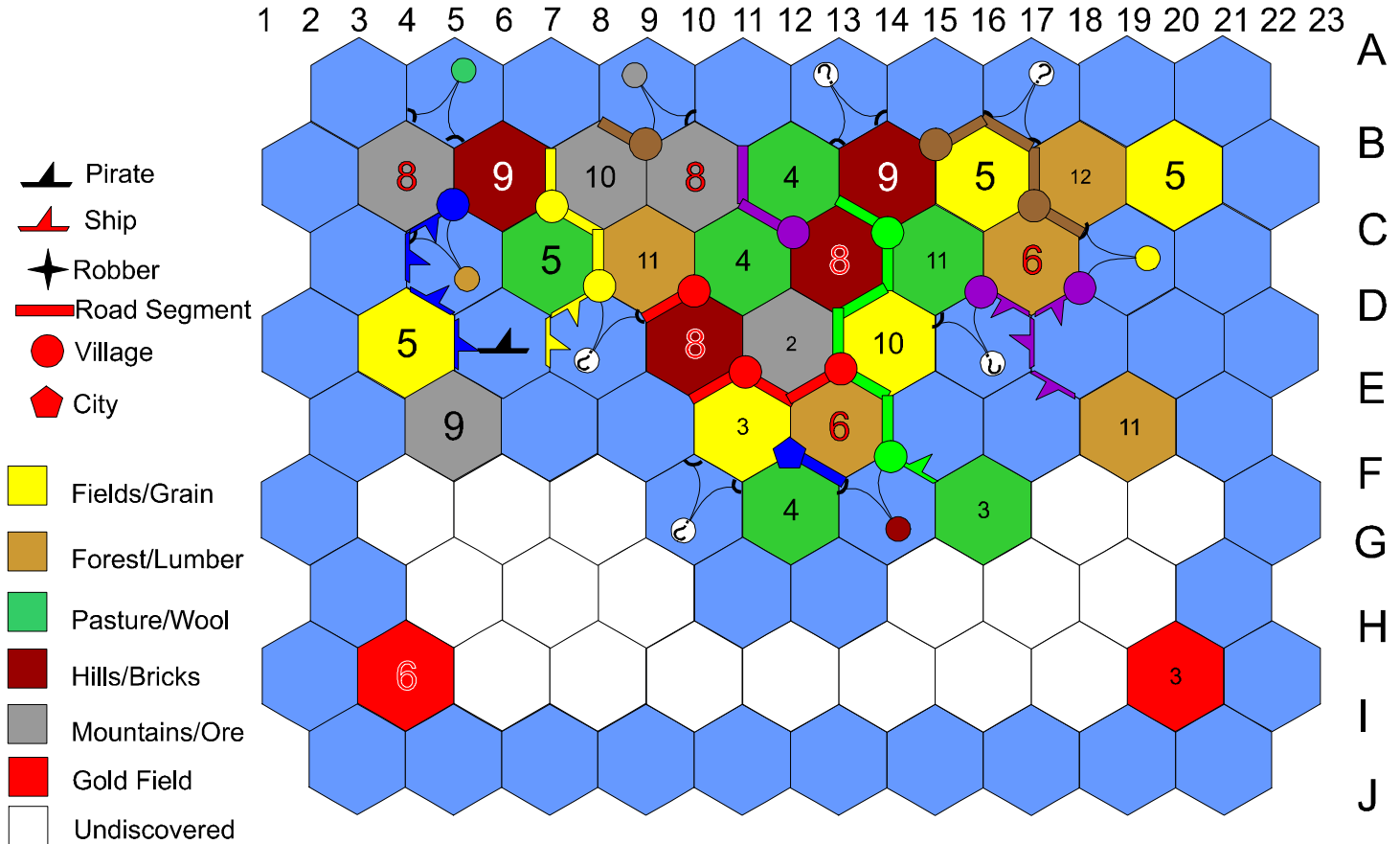
Turn 5 Rolls

Mike 8 Dave P. 12 Michael 7 Andy 8

The Players

Player	Color	Grain	Wool	Lumber	Brick	Ore	Development Cards	VP
Mike Scott	Red			1		3		3
Dave Partridge	Blue	2		2	1	3		3
Michael Longdin	Green		1	2		1		2
Andy York	Yellow		2	1		2		4*
Dave Hooton	Purple			3	1	1		3
Chris Geggus	Brown	2		1		1		3

* Longest trade route.



Malamute

Turn 4

Deadline Turn 5, 3/18 Tuesday

Planning

Portuguese maintain 3 ships (\$12), buys 1 ship (\$12) and 3 soldiers (\$30) for \$54.
Swedes maintains 2 ships (\$8), buys 1 Ship (\$12) and 2 Soldiers (\$20) for \$40.
English maintain 5 ships (\$20) and buys 5 Soldiers (\$50) for \$70.
Dutch maintains 4 ships (\$16), buys 1 ship (\$12) and 5 soldiers (\$50) for \$78.
Spanish maintain 2 ships (\$8), buy 1 ship (\$12) and 2 soldiers (\$20) for \$40.
French maintain 3 ships (\$12), buy 1 ship (\$12) and 4 Soldiers (\$40) for \$64.

Outbound Naval Movement

Portuguese Move to R. Dice: 2, 3, 4, 6. No losses.
Swedes Move to K. Dice: 2, 3, 3. No losses.
English Move to O. Dice: 3, 5, 5. No losses.
Dutch Move to N. Dice: 3, 3, 3, 5. No losses.
Spanish Move to S. Dice: 1, 1, 2, 2, 2, 4, 6, 6, 6. Loses 2 soldiers.
French Move to C. Dice: 2, 4, 5, 6. No losses.

Discovery

Swedes discover a mine in G. **English** discover a mine in O. **Spanish** discover a mine in P.

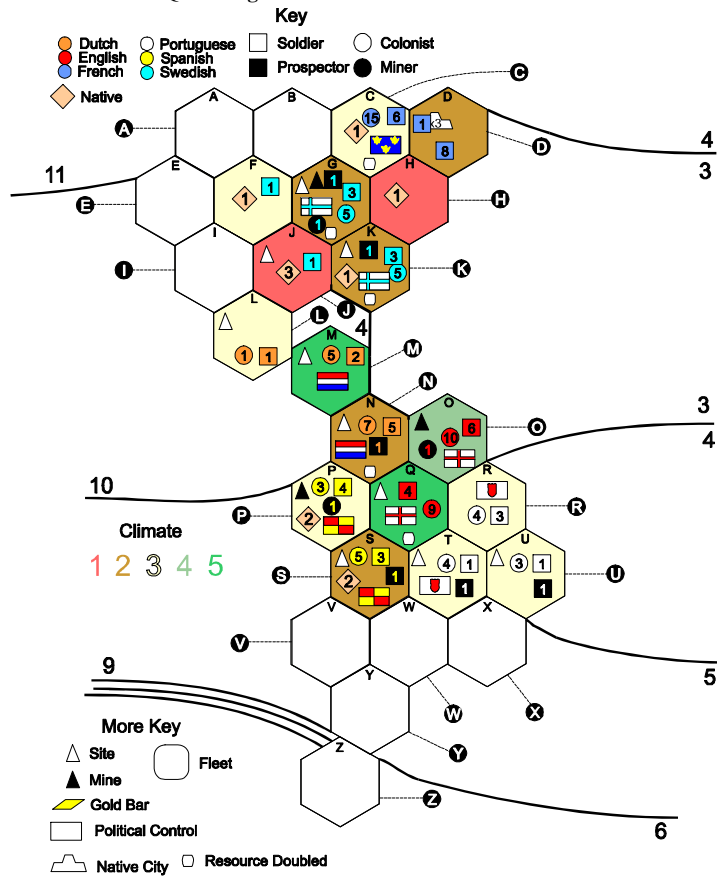
Land Movement

Portuguese move 4 colonists and 4 soldiers from R to T. It is a climate 3 area with 1 site and 1 native. One soldier prospects. Moves 3 soldiers and 4 colonists from fleet into R.
Swedes move 1 soldier from G to F. It is a climate 3 area with 1 native. Move 1 soldier from G to J. It is a climate 1 area with 1 site and 3 natives. Move 2 soldiers and 4 colonists from fleet to K. One colonist in G mines.
English move 5 soldiers and 9 colonists from O to Q. Move 5 soldiers and 5 colonists from fleet to O. One colonist in O mines.
Dutch move 4 soldiers and 2 colonists from N to M. Move 1 colonist and 3 soldiers from M to L. It is a climate 3 area with 1 site and 2 natives. 5 colonists and 5 soldiers move from fleet to N.
Spanish move 4 colonists from fleet to S. One colonist in P mines.
French move 10 soldiers from C to D, and 4 colonists and 4 soldiers from fleet to C.

Native Combat

French: 1 soldier and 6 natives killed in D. **Swedes:** 1 soldier and 1 native killed in K. **Dutch:** 2 soldiers and 2 natives killed in L. **English:** 3 soldiers and

3 natives killed in Q. **Portuguese:** 2 soldiers and 1 native killed in T.



Native Uprisings

Climate is a 1. Uprisings in C (0 colonists killed), K (1 colonist killed), P (0 colonists killed), and S (0 colonists killed).

Survival

Climate is a 6.

S.O.B.

No losses.

Political Control

Swedes gain political control of K, Dutch gain political control of M, English gain political control of Q, Spanish gain political control of S, and Portuguese gain political control of T.

Homebound Naval Movement

- Portuguese:** Dice: 3, 3, 4, 5. No losses.
- Swedes:** Dice: 1, 2, 6. No losses..
- English:** Dice: 3, 4, 4. No losses.
- Dutch:** Dice: 2, 4, 6, 6. No losses.
- Spanish:** Dice: 1, 1, 1, 3, 4, 4, 4, 5, 5. Loses 2 ships.
- French:** Dice: 3, 4, 5, 6. No losses.

Income

- Portuguese:** Political Control: \$60, resources: \$11.
- Swedes:** Political Control: \$60, resources: \$20.
- English:** Political Control: \$60, resources: \$28.
- Dutch:** Political Control: \$60, resources: \$40.
- Spanish:** Political Control: \$60, resources: \$8.
- French:** Political Control: \$40, resources: \$30.

Turn 5 Initiative

Swedes, Portuguese, Spanish, Dutch, English, French Portuguese attitude is (dr = 9) Piracy versus France.

Players

Country	Player	Money	Available Soldiers	Ships	Colonists
French	Dennis Cain	\$72	7	4	4
Swedes	Andy Lewis	\$127	12	3	4
Dutch	Andy York	\$128	11	5	3
English	Dave Partridge	\$102	11	5	5
Spanish	Cary Nichols	\$85	13	1	4
Portuguese	Non-Player	\$75	13	4	5

Cats and Dogs

Epoch II Empire Selection, Assyrians, and Chou Dynasty

Deadline Epoch II Vedic City States, Greek City States, and Scytheans, 3/18 Tuesday

Epoch II Empire Selection

- Systematic Chaos** (Cain) keeps
- Royal Manticoran Historical Society** (Wilson) keeps
- The Time Traveler** (Anderson) keeps
- Marching Through the Ages** (Lewis) gives to The Questioner
- The Questioner** (Partridge) gives to Marching through the Ages
- 100% Pussycats** (Longdin) gives to Arachnids
- Arachnids** (Bolduc) gives to 100% Pussycats

Epoch II

Royal Manticoran Historical Society (Wilson) plays Phoenicia. Army and Capital Levant (Egyptian army eliminated), fleet Eastern Mediterranean (vs. Marching through the Ages; RMHS: 6, 6; MttA: 2; wins), army Pindus. ASSYRIA: Army and Capital Upper Tigris (Babylonian army retreats to Middle Tigris), army Zagros (vs. Hittites; A: 4, 2; H: 6, 6; loses), Zagros (vs. Hittites; A: 4, 2; H: 5, 4; loses), Zagros (vs. Hittites; A: 5, 2; H: 4, 2; wins), Levant (vs. Phoenicia; automatic win, Capital reduced to city), Palestine, Nile Delta (vs. Egypt; A: 3, 1; E: 2; wins, Capital reduced to city), Libya. Builds Monument Upper Tigris. Points: Dominance in Middle East (6), Presence in North Africa (2) and Southern Europe (2), 2 Capitals (4), 4 cities (4), 1 Sea (1), and 3 Monuments (3) for 22 points.

Arachnids (Bolduc) plays North American Migrants in Great Lakes and Great Plains. CHOU DYNASTY: Army and Capital Wei River, army Yellow River (vs. Shang Dyansty; C: 4, 2; S: 5; loses), Great Plain of China (vs. Shang Dynasty; C: 5, 4; S: 3; wins), Chekiang (vs. Shang Dynasty; C: 6, 4; S: 4; wins), Tarim Basin (vs. Aryans; automatic win), Yellow River (vs. Shang Dynasty; C: 5, 1; S: 6; loses). Builds Monument Wei River. Points: Dominance in China (4), Presence in Middle East (3) and India (2), one Capital (2), and one Monument (1) for 12 points.

Players

Player Name	Player Faction Name/Color	Empire Strength Points	Victory Points
Dennis Cain	Systematic Chaos (black)	4	9
Dave Anderson	The Time Traveler (orange)	4	8
Andy Lewis	Marching through the Ages (red)	4	5
Dave Partridge	The Questioner (yellow)	4	4
Michael Longdin	100% Pussycats (green)	5	7
Paul Bolduc	Arachnids (blue)	11	16
Kevin Wilson	Royal Manticoran Historical Society (purple)	12	31

Positions

Systematic Chaos: SUMERIANS: Armies Persian Plateau, Upper Indus.

100% Pussycats: EGYPT: Armies Morea, Nubia.

Marching Through the Ages: MINOANS: Army, Capital, and Fort in Crete, army and Fort in Western Anatolia, army Balkans.

The Time Traveler: INDUS VALLEY: Army and Capital Lower Indus, armies Western Deccan, Western Ghats.

Royal Manticoran Historical Society: Fleet Eastern Mediterranean. BABYLONIANS: Army and Capital Middle Tigris, army, city, and Monument Lower Tigris, army and city Eastern Anatolia, army Upper Tigris. PHOENICIA: Army Pindus. ASSYRIA: Army, Capital, and Monument Upper Tigris, army, city, and Monument Nile Delta, army and city Levant, armies Libya, Palestine, Zagros.

The Questioner: SHANG DYNASTY: Army and Capital Yellow River, army Si-Kyang.

Arachnids: ARYANS: Armies Turanian Plain, Hindu Kush, Persian Salt Desert NORTH AMERICAN MIGRANTS: Armies Great Lakes, Great Plains. CHOU DYNASTY: Army, Capital, and Monument Wei River, armies Great Plain of China, Checkiang, Tarim Basin.

Arachnids: ARYANS: Armies Turanian Plain, Tarim Basin, Hindu Kush, Persian Salt Desert

Event CardsEpoch II EmpireGreyhoundGamestart

Deadline Initial Bids and Discards, 3/18 Tuesday

The Players

Player	Country	Misery	Tokens	Money	Order	Dominance	Ships	Advances
Michael Longdin		0		\$40		0		
Bob Robles		0		\$40		0		
Dave Partridge		0		\$40		0		
Steve Koehler		0		\$40		0		
Dave Hood		0		\$40		0		
Robert Koehler		0		\$40		0		

Notes

Remember that we are playing with the Eurogames rules. A link to the updated advance log and rules changes has been added to the main website page. By these rules, you have each been dealt three cards. You must select one to discard, which will be shuffled back into the deck.

Commodity LogCards

Commodity	Michael	Bob	Dave P.	Steve	Dave H.	Robert
Stone (2)	--	--	--	--	--	--
Wool (3)	--	--	--	--	--	--
Timber (4)	--	--	--	--	--	--
Grain (5)	--	--	--	--	--	--
Cloth (6)	--	--	--	--	--	--
Wine (7)	--	--	--	--	--	--
Metal (8)	--	--	--	--	--	--
Fur (9)	--	--	--	--	--	--
Silk (10)	--	--	--	--	--	--
Spice (11)	--	--	--	--	--	--
Gold (12)	--	--	--	--	--	--
Ivory (12)	--	--	--	--	--	--

Pedagogy

When it comes to the sizes of astronomical objects, by and large, Nature likes variety. Planets and stars run a whole continuum of sizes, from tiny specks like your smaller asteroids, to behemoths like Eta Carinae (which is anywhere from 50 to 100 times the size of our sun). However, in the case of black holes, there appeared to be a gap. We have managed to find stellar mass black holes, which range from about 4 to 20 times the mass of the sun, and super massive black holes, which range in the millions to billions of solar masses, but nothing in between. Now, since the launch of two X-ray observatories, Japan's ASCA and NASA's Chandra, we may have candidates to fill that gap.

Most black holes are observable only when they are accreting matter. A black hole by itself is, by its very nature, extremely difficult to observe. However, feed a steady stream of matter into it, and the matter forms into an accretion disk that generates enough energy to put out significant amounts of X-rays. The bigger the black hole, the more luminous the accretion disk. What both ASCA and Chandra have observed are Ultra Luminous X-Ray objects, or ULXs. Many of these ULXs are located in star-forming regions of galaxies. In addition, they also tend to vary their luminosity on short time scales – an indication that the objects themselves must be small in size.

The largest black hole that can form from the collapse of a star is thought to be about 20 solar masses. Such a black hole, if it were to accrete the maximum amount of matter, would shine with an X-ray luminosity of about 5×10^{39} ergs per second, if it were radiating uniformly in all directions. (Feeding the black hole more matter past a certain point would only cause the accretion disk to grow, and would potentially cause it to blow off more matter, so the process tends to be somewhat self-limiting.) The ULXs observed tend to be more luminous than this by a factor of 10 to 100. Does this indicate an intermediate mass black hole (IMBH)? The evidence is inconclusive.

The first assumption made is that the black holes are radiating uniformly. Most black holes that we observe beam most of their radiation out as jets streaming from the rotational poles. As a result, many ULXs could well be stellar-mass black holes whose jets happen to be aimed toward us. Only one object, a very bright ULX in the M82 galaxy in Ursa Major (called M82 X-1) appears to unambiguously be an IMBH. How can we get a more definitive answer about the others? Obtains a more direct measurement of their mass.

The most famous black hole, Cygnus X-1, has had its mass measured because it has a companion star. By observing the motion of that star, we can obtain a

combined mass of the system, and knowing stellar physics as we do, we can also get a good idea of the mass of the companion by direct observation. Subtract the one from the other, and we get a value of about 6 solar masses for the black hole. Astronomers are attempting to do the same thing with UHXs. Since most of them appear to be in star forming regions, odds are good that they have companions. Observations of M82 X-1 indicate, for example, the presence of an evolved companion star in a 62-day orbit. The difficulty is that all of the UHXs are very distant. Matching up a Chandra X-ray image with a Hubble optical image is a start, but the X-ray object can only be pinned down to about 1 arc second on the Hubble image, and there are frequently several possible stars within that area of the sky. While difficult, this is the most promising mechanism, since it involves the fewest assumptions.

Another mechanism involves the variability of the UHX itself. The luminosity of an accretion disk is “quasi-periodic”, which means that it flickers at not-quite periodic intervals as bright blobs within the disk disappear behind the black hole as they orbit. Since the variability depends somewhat on the orbital period of the disk, in theory we could use it to determine the mass of the black hole. Some assumptions have to be made in this method, however, so the results are not as reliable.

So assuming IMBHs exist, how would they be formed, and why do there appear to be so few of them? The best clue to their formation lies in where they are found: very active star forming regions. In such regions, very large numbers of stars are formed in very tight quarters. Collisions between stars are common in such conditions, and can lead to mergers of stars. If conditions are right, it can lead to a runaway merger, yielding a star with between 800 to 3000 solar masses, which would quickly collapse to form a black hole. Simulations indicate that the entire process would take place in about 3 million years, which is very short in cosmic time scales.

Once an IMBH is formed, it will interact gravitationally with the stars around it. A typical interaction would result in the star getting ejected from the cluster, and possibly from the host galaxy as well. As a result, the black hole would sink a little closer to the central black hole of the galaxy. Eventually, the two would merge. This steady loss of IMBHs to the central black hole could be a reason why so few are observed.

Next issue: how to protect interplanetary travelers from cosmic rays.



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		Ward Narhi 521 Moreley		

Standbys

Anybody who gets onto my standby list automatically receives one free issue of *S.O.B.* In addition, if you actually submit standby orders, you get another free issue. So, let's get those people standing by. The current standby list is:

Machiavelli (gunboat and regular): Steve Koehler, Bill Scharf, Bob Robles, Mike Scott, Ward Narhi, Paul Bolduc, Pasquale Giovine, Andy York, Cary Nichols, Lee McConnell, Dave Partridge, Dale Horsely **Dune:** Steve Koehler, Paul Bolduc, Kevin Wilson, Ward Narhi, Andy York, Cary Nichols, Bill Scharf, Dave Partridge **New World:** Andy York, Bill Scharf, Cary Nichols, Dave Partridge **Merchant of Venus:** Paul Bolduc, Carrie Lewis, Bob Robles, Andy York, Cary Nichols, Dave Partridge **Outpost:** Michael Lowrey, Kevin Wilson, Andy York, Cary Nichols, Bill Scharf, Dave Partridge **History of the World:** Andy Lewis, Paul Bolduc, Kevin Wilson, Chris Geggus, Andy York, Cary Nichols, Dave Partridge **Stellar Conquest:** Paul Bolduc, Kevin Wilson, Andy York, Cary Nichols, Dave Partridge **Liftoff!:** Dennis Cain, Andy York, Cary Nichols, Bill Scharf, Dave Partridge **Age of Renaissance:** Bob Robles, Michael Lowrey, Cary Nichols, Dave Partridge, Michael Longdin **Kremlin:** Andy York, Andy Lewis, Pasquale Giovine, Cary Nichols, Bill Scharf, Dave Partridge, Michael Longdin **Silverton:** Cary Nichols, Bill Scharf, Dave Partridge **Settlers of Catan:** Michael Lowrey, Chris Geggus, Cary Nichols, Dave Partridge **Gunslinger:** none **Industrial Waste:** Michael Longdin

Standby Calls

None this issue