

The Martian - Andy Weir

ISBN 9780804139021

eBook ISBN: 9780804139038

Chapter 1

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I'm pretty much fucked.

That's my considered opinion.

Fucked.

Six days into what should be the greatest two months of my life, and it's turned into a nightmare. (1)

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Nobody wanted to stop a monthlong mission after only six days [...]. We had to go out in the storm to get [...] Everyone made it but me. (7)

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Then one of those long thin antennae slammed into me end-first. [...] it ripped open my side. (8)

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The Hab was intact (yay!) and the MAV was gone (boo!). (9)

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I'm stranded on Mars. I have no way to communicate with Hermes or Earth. Everyone thinks I'm dead. I'm in a Hab designed to last thirtyone days. (10)

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Chapter 2

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The medical area has morphine for emergencies. And there's enough there for a lethal dose. I'm not going to slowly starve to death, I'll tell you that. (11)

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I'm a botanist and mechanical engineer. (11)

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People have been using human waste as fertilizer for centuries. [...] Normally, it's not an ideal way to grow crops, because it spreads disease [...]. The only pathogens in this waste are the ones I already have.

[...] My asshole is doing as much to keep me alive as my brain. (17)

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Hell yeah I'm a botanist! Fear my botany powers! (18)

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I'd give anything just to let them [my parents] know I'm still alive.

I'll just have to survive to make up for it. (19)

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Chapter 3

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I could cut off an arm and eat it, gaining me valuable calories and reducing my overall caloric need.

No, not really. (24)

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Chemistry, being the sloppy bitch it is [...] (31)

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Chapter 4

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As you can see, this plan provides many opportunities for me to die in a fiery explosion. [...] I'm going to be setting a fire. In the Hab. On purpose. (32)

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If you find the charred remains of the Hab, it means I did something wrong. I'm copying this log over to both rovers, so it's more likely it'll survive. (34)

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Turns out even NASA can't improve on duct tape. (35)

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Well my math was a damn liar! (39)

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The HAB is now a bomb! (40)

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Chapter 5

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Disco. God damn it, Lewis. (42)

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Yeah. This all sounds like a great idea with no chance of catastrophic failure.

That was sarcasm, by the way.

Well, off I go. (43)

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Everything went great right up to the explosion. (46)

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Chapter 6

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"Hello, Security? This is Mindy Park in SatCon. I need the emergency contact number for Dr. Venkat Kapoor... Yes it's an emergency." (57)

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"Why are the solar cells clean?" Mindy said, fighting back tears. [...]

"Did I mention I never found Watney's body?" she said, sniffing.

Venkat's eyes widened as he stared at the picture. "Oh...," he said quietly. "Oh God.."

Mindy put her hands over her face and sobbed quietly. (58)

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"FUCK!" Annie Montrose said. "You have got to be fucking kidding me!" (58)

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"All right," Teddy said. "Get on it. Take anyone you want from any department. Use as much overtime as you want. Find a way to talk to him. That's your only job right now." (61)

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Even SuperSurveyor 3, which has the strongest transmitter, would need to be fourteen times more powerful—

"Seventeen times," Chuck said.

"Fourteen times," Morris asserted.

"No, it's seventeen. You forgot the amperage minimum for the heaters to keep the—" [...]

"Okay," Venkat said. "Explain to me how a single windstorm removed our ability to talk to Ares 3."

"Failure of imagination," Chuck said. (62)

=====

We never thought someone would be on Mars without an MAV."

"I mean, come on!" Morris said. "What are the odds?"

Chuck turned to him. "One in three, based on empirical data. That's pretty bad if you think about it." (63)

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We [...] have confirmed that astronaut Mark Watney is, currently, still alive."

After one full second of utter silence, the room exploded with noise. (64)

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"We can rescue him with Ares 4. It's very risky. We ran the idea by the Ares 4 crew. Not only are they willing to do it, but now they're really pushing hard for it."

"Naturally," Teddy said. "Astronauts are inherently insane. And really noble. (66)

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Chapter 7

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I'll pick Rover 2 as my target. We have a certain bond, after I spent two days in it during the Great Hydrogen Scare of Sol 37. (69)

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My conclusion was "Fuck it." (72)

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LOG ENTRY: SOL 67

Sirius 1 is complete!

More accurately, Sirius 1 was aborted after one hour. I guess you could call it a "failure," but I prefer the term "learning experience." (75)

=====

All my brilliant plans foiled by thermodynamics. Damn you, Entropy! (75)

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I'm going to use the RTG.

The RTG (radioisotope thermoelectric generator) is a big box of plutonium. But not the kind used in nuclear bombs. No, no. This plutonium is way more dangerous! (76)

=====

The planet's famous red color is from iron oxide coating everything. So it's not just a desert. It's a desert so old it's literally rusting.

The Hab is my only hint of civilization, and seeing it disappear made me way more uncomfortable than I like to admit. (78)

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I'm bored, so I'm updating the log. (80)

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Chapter 8

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The dark bags under his eyes made Mindy wonder just how overworked he truly was. (85)

=====

She was everything Mindy wanted to be. Confident, high-ranking, beautiful, and universally respected within NASA. (85)

=====

"I want that gap down to four minutes," Teddy said. "I'm giving you total authority over satellite trajectories and orbital adjustments. Make it happen."

"Yes, sir," Mindy said, with no idea how to do it. (88)

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"Pathfinder!" Mindy said. "He's going to Pathfinder!" (97)

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Chapter 9

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I'm nostalgic for the Hab. How fucked up is that? (99)

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I'm about 100 kilometers from Pathfinder. Technically it's "Carl Sagan Memorial Station." But with all due respect to Carl, I can call it whatever the hell I want. I'm the King of Mars. (100)

=====

I'm the first guy to drive long-distance on Mars. The first guy to spend more than thirty-one sols on Mars. The first guy to grow crops on Mars. First, first, first! (102)

=====

Okay, enough moping. I am having a conversation with someone: whoever reads this log. It's a bit one-sided but it'll have to do. I might die, but damn it, someone will know what I had to say. (102)

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If I establish a link with NASA, I can talk to them by holding a page of text up to the lander's camera. (105)

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Chapter 10

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For the first time, I think I might get off this planet alive. (108)

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Then there's the issue of heat. It's a good idea to keep electronics above -40°C. The temperature today is a brisk -63°C. (113)

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Sojourner's showing no signs of life, either. (114)

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Chapter 11

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"SOMETHING'S COMING IN...yes...yes! It's Pathfinder!"

The crowded room burst into applause and cheers. Venkat slapped an unknown technician on the back while Bruce pumped his fist in the air. (115)

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It worked!

Holy shit, it worked!

I just suited up and checked the lander. The high-gain antenna is angled directly at Earth! [...]

They know I'm alive! (117)

=====

I spent three months as the loneliest man in history and it's finally over.

Sure, I might not get rescued. But I won't be alone.

The whole time I was recovering Pathfinder, I imagined what this moment would be like. I figured I'd jump up and down a bit, cheer, maybe flip off the ground (because this whole damn planet is my enemy), but that's not what happened. When I got back to the Hab and took off the EVA suit, I sat down in the dirt and cried. Bawled like a little kid for several minutes. I finally settled down to mild sniffing and then felt a deep calm.

[...]

It occurs to me: Now that I might live, I have to be more careful about logging embarrassing moments. How do I delete log entries? (117)

=====

"We got a note from Mark!" Venkat announced to the room.

[...]

"It

says...'I'll write questions here-Are you receiving?'" (119)

=====

"This one says 'Point here for yes.'" [...]

"All right. We have communication with Mark. Tim, point the camera at 'Yes.'" (120)

=====

Time to get to work!

Spell with ASCII. 0-F at 21-degree increments. Will watch camera starting 11:00 my time. When message done, return to this position. Wait 20 minutes after completion to take picture (so I can write and post reply). Repeat process at top of every hour.

S...T...A...T...U...S

No physical problems. All Hab components functional. Eating 3/4 rations. Successfully growing crops in Hab with cultivated soil. Note: Situation not Ares 3 crew's fault. Bad luck.

H...O...W...A...L...I...V...E

Impaled by antenna fragment. Knocked out by decompression. Landed facedown, blood sealed hole. Woke up after crew left. Bio-monitor computer destroyed by puncture. Crew had reason to think me dead. Not their fault.

C...R...O...P...S...?

Long story. Extreme botany. Have 12 m2 farmland growing potatoes. Will extend food supply, but not enough to last until

Ares 4 landing. Modified rover for long-distance travel, plan to drive to Ares 4.

W...E...S...A...W...-...S...A...T...L...I...T...E

Government watching me with satellites? Need tinfoil hat! Also need faster way to communicate. Speak&Spell taking all damn day. Any ideas?

B...R...I...N...G...S...J...R...N...R...O...U...T

Sojourner rover brought out, placed 1 meter due north of lander. If you can contact it, I can draw hex numbers on the wheels and you can send me six bytes at a time.

S...J...R...N...R...N...O...T...R...S...P...N...D

Damn. Any other ideas? Need faster communication.

W...O...R...K...I...N...G...O...N...I...T

Earth is about to set. Resume 08:00 my time tomorrow morning. Tell family I'm fine. Give crew my best. Tell Commander Lewis disco sucks. (122)

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CNHAKRVR2TLK2PTHFDRPRP4LONGMSG

Yeah. Took me a minute. "Can hack rover to talk to Pathfinder. Prepare for long message." (127)

=====

I gave the camera a thumbs-up to go along with my note, which said, Ayyyyyy!

Blame the seventies TV. (127)

=====

"I ASK for a picture, and I get the Fonz?" Annie asked, admonishing Venkat. (127)

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"Holy crap!" Jack said.

"It [rigging mars rover to talk directly to "pathfinder", which then talks to earth] worked!" Venkat announced to the room.

(130)

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[11:18] JPL: Mark, this is Venkat Kapoor. We've been watching you since Sol 49. The whole world's been rooting for you. Amazing job, getting Pathfinder. We're working on rescue plans. JPL is adjusting Ares 4's MDV to do a short overland flight. They'll pick you up, then take you with them to Schiaparelli. We're putting together a supply mission to keep you fed till Ares 4 arrives.

[11:29] WATNEY: Glad to hear it. Really looking forward to not dying. I want to make it clear it wasn't the crew's fault. Side question: What did they say when they found out I was alive? Also, "Hi, Mom!"

[11:41] JPL: Tell us about your "crops." We estimated your food packs would last until Sol 400 at 3/4 ration per meal. Will your crops affect that number? As to your question: We haven't told the crew you're alive yet. We wanted them to concentrate on their own mission.

[11:52] WATNEY: The crops are potatoes, grown from the ones we were supposed to prepare on Thanksgiving. They're doing great, but the available farmland isn't enough for sustainability. I'll run out of food around Sol 900. Also: Tell the crew I'm alive! What the fuck is wrong with you?

[12:04] JPL: We'll get botanists in to ask detailed questions and double-check your work. Your life is at stake, so we want to be sure. Sol 900 is great news. It'll give us a lot more time to get the supply mission together. Also, please watch your language. Everything you type is being broadcast live all over the world.

[12:15] WATNEY: Look! A pair of boobs! -

> (.Y.) (131)

=====

Chapter 12

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Martinez was first out of his bunk. An air force man, he could match Lewis's navy schedule with ease. (133)

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Only the European Union flag on Vogel's shoulder distinguished him from Lewis and Martinez, who wore the Stars and Stripes. (135)

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"I have some news," Mitch's voice continued. "There's no subtle way to put this: Mark Watney's still alive."

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Chapter 13

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Now that NASA can talk to me, they won't shut the hell up. (148)

=====

They say once you grow crops somewhere, you have officially "colonized" it. So technically, I colonized Mars. In your face, Neil Armstrong! (148)

=====

If Pathfinder craps out, I'll spell messages with rocks, which NASA will see with satellites. (149)

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The meddling botanists have grudgingly admitted I did a good job. They agree I'll have enough food to last till Sol 900. (149)

=====

Got my first e-mail from Hermes today. NASA's been limiting direct contact. I guess they're afraid I'll say something like

"You abandoned me on Mars, you assholes!" I know the crew was surprised to hear from the Ghost of Mars Missions Past, but c'mon! I wish NASA was less of a nanny sometimes. (150)

=====

It's almost time for the second harvest. Ayup. I wish I had a straw hat and some suspenders. (151)

=====

I got an e-mail from Venkat Kapoor: Mark, some answers to your earlier questions: No, we will not tell our Botany Team to "Go fuck themselves." I understand you've been on your own for a long time, but we're in the loop now, and it's best if you listen to what we have to say. The Cubs finished the season at the bottom of the NL Central. The data transfer rate just isn't good enough for the size of music files, even in compressed formats. So your request for "Anything, oh God, ANYTHING but Disco" is denied. Enjoy your boogie fever. Also, an uncomfortable side note...NASA is putting together a committee. They want to see if there were any avoidable mistakes that led you to being stranded. (152)

=====

Venkat, tell the investigation committee they'll have to do their witch hunt without me. And when they inevitably blame Commander Lewis, be advised I'll publicly refute it. I'm sure the rest of the crew will do the same. Also, please tell them that each and every one of their mothers is a prostitute. - Watney PS: Their sisters, too. (152)

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To them, equipment failure is terrifying. To me, it's "Tuesday." (154)

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Me: "This is obviously a clog. How about I take it apart and check the internal tubing?"

NASA: (after five hours of deliberation) "No. You'll fuck it up and die." So I took it apart.

I told NASA what I did. Our (paraphrased) conversation was:

Me: "I took it apart, found the problem, and fixed it."

NASA: "Dick." (155)

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Chapter 14

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The seal looked strong and the resin was rock-hard. I did, however, glue my hand to the helmet. Stop laughing. In retrospect, using my fingers to spread the resin wasn't the best plan. (165)

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The farm is dead. [...] Potatoes are now extinct on Mars. So is the soil bacteria. I'll never grow another plant so long as I'm here. (172-3)

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Chapter 15

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[08:31] JPL: Good, keep us posted on any mechanical or electronic problems. By the way, the name of the probe we're sending is Iris. Named after the Greek goddess who traveled the heavens with the speed of wind. She's also the goddess of rainbows. [08:47] WATNEY: Gay probe coming to save me. Got it. (176)

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"Once he runs out of food, how long until he starves to death?" Teddy asked. "Presuming an ample water supply, he might last three weeks. Shorter than a typical hunger strike, but remember he'll be malnourished and thin to begin with." Venkat raised a hand and caught their attention. "Remember, Iris is a tumbler; he might have to drive a few days to get it. And I'm guessing it's hard to control a rover when you're literally starving to

death." "He's right," Dr. Keller confirmed. "Within four days of running out of food, he'll barely be able to stand up, let alone control a rover. Plus, his mental faculties will rapidly decline. He'd have a hard time even staying awake." (180)

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[08:45] JPL: this is the best "bonus Mars time" we've had since the Opportunity lander.

[09:02] WATNEY: Opportunity never went back to Earth.

[09:17] JPL: Sorry. Bad analogy. (182)

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"DO YOU believe in God, Venkat?" Mitch asked. "Sure, lots of 'em," Venkat said. "I'm Hindu." "Ask 'em all for help with this launch." "Will do." (185)

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Guo Ming smiled. "They'll give us something we can't get without them." "And that is?" "They'll put a Chinese astronaut on Mars." (197)

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Chapter 16

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Martinez: Dr. Shields says I need to write personal messages to each of the crew. She says it'll keep me tethered to humanity. I think it's bullshit. But hey, it's an order. With you, I can be blunt: If I die, I need you to check on my parents. They'll want to hear about our time on Mars firsthand. I'll need you to do that. It won't be easy talking to a couple about their dead son. It's a lot to ask; that's why I'm asking you. I'd tell you you're my best friend and stuff, but it would be lame. I'm not giving up. Just planning for every outcome. It's what I do. (193)

=====

Johanssen: Your poster outsold the rest of ours combined. You're a hot chick who went to Mars. You're on dorm-room walls all over the world. Looking like that, why are you such a nerd? And you are, you know. A serious nerd. I had to do some computer shit to get Pathfinder talking to the rover and oh my god. And I had NASA telling me what to do every step of the way. You should try to be more cool. Wear dark glasses and a leather jacket. Carry a switchblade. Aspire to a level of coolness known only as..."Botanist Cool." Did you know Commander Lewis had a chat with us men? If anyone hit on you, we'd be off the mission. I guess after a lifetime of commanding sailors, she's got an unfairly jaded view. Anyway, the point is you're a nerd. Remind me to give you a wedgie next time I see you. (198)

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Beck: Hey, man. How ya been? Now that I'm in a "dire situation," I don't have to follow social rules anymore. I can be honest with everyone. Bearing that in mind, I have to say...dude...you need to tell Johanssen how you feel. If you don't, you'll regret it forever. I won't lie: It could end badly. I have no idea what she thinks of you. Or of anything. She's weird. But wait till the mission's over. You're on a ship with her for another two months. Also, if you guys got up to anything while the mission was in progress, Lewis would kill you. (207)

=====

Lewis stayed behind as the rest filed out. Watching them leave, she saw they were smiling. All four of them. For the first time since leaving Mars, they were back to their old selves. She knew right then no one's mind would change. They were going back to Mars. (215)

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Chapter 17

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I'll be playing with high-voltage power tomorrow. Can't imagine anything going wrong with that! (221)

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Yes, of course duct tape works in a near-vacuum. Duct tape works anywhere. Duct tape is magic and should be worshiped. (223)

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I got really bored, so I decided to pick a theme song! Something appropriate. And naturally, it should be something from Lewis's godawful seventies collection. It wouldn't be right any other way. There are plenty of great candidates: "Life on Mars?" by David Bowie, "Rocket Man" by Elton John, "Alone Again (Naturally)" by Gilbert O'Sullivan. But I settled on "Stayin' Alive" by the Bee Gees. (226)

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I fucked up. I fucked up big-time. I made a mistake that might kill me. [...] The worst moments in life are heralded by small observations. The tiny lump on your side that wasn't there before. Coming home to your wife and seeing two wineglasses in the sink. Anytime you hear "We interrupt this program..." (227)

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At 13:30, I leaned the drill against the workbench. The drill's cowling was off to make room for the power line. The workbench is metal. If the drill leaned against the workbench just right, it could make a metal-to-metal connection. And that's exactly what had happened. Power traveled from the drill line's positive lead, through the workbench, through the Mylar, through Pathfinder's hull, through a bunch of extremely sensitive and irreplaceable electronics, and out the negative lead of Pathfinder's power line. Pathfinder operates on 50 milliamps. It got 9000 milliamps, which plowed through the delicate electronics, frying everything along the way. The breakers tripped, but it was too late. Pathfinder's dead. I've lost the ability to contact Earth. I'm on my own. (230)

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Chapter 18

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Only an idiot would keep that thing near the Hab. So anyway, I brought it back to the Hab. (237)

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I tested the brackets by hitting them with rocks. This kind of sophistication is what we interplanetary scientists are known for. (242)

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Chapter 19

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She fell silent for several seconds. Finally, she said, "They have a plan." "Who?" "They always have a plan," she said. "They work out everything in advance." "What plan?" "They picked me to survive. I'm youngest. I have the skills necessary to get home alive. And I'm the smallest and need the least food." "What happens if the probe fails, Beth?" her father asked. "Everyone would die but me," she said. "They'd all take pills and die. They'll do it right away so they don't use up any food. Commander Lewis picked me to be the survivor. She told me about it yesterday. I don't think NASA knows about it." "And the supplies would last until you got back to Earth?" "No," she said. "We have enough food left to feed six people for a month. If I was the only one, it would last six months. With a reduced diet I could stretch it to nine. But it'll be seventeen months before I get back." "So how would you survive?" "The supplies wouldn't be the only source of food," she said. He widened his eyes. "Oh...oh my god..." "Just tell Mom the supplies would last, okay?" (255)

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"So," he said, "who would you have eaten first?"

She glared at him.

"'Cause I think I'd be tastiest," he continued, flexing his arm. "Look at that. Good solid muscle there."

"You're not funny."

"I'm free-range, you know. Corn-fed."

She shook her head and accelerated down the hall.

"Come on! I thought you liked Mexican!"

"Not listening," she called back. (259)

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Chapter 20

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Mars is "international waters." NASA is an American nonmilitary organization, and it owns the Hab. So while I'm in the Hab, American law applies. As soon as I step outside, I'm in international waters. Then when I get in the rover, I'm back to American law. Here's the cool part: I will eventually go to Schiaparelli and commandeer the Ares 4 lander. Nobody explicitly gave me permission to do this, and they can't until I'm aboard Ares 4 and operating the comm system. After I board Ares 4, before talking to NASA, I will take control of a craft in international waters without permission. That makes me a pirate! A space pirate! (262)

=====

I've been eating potatoes for weeks. Theoretically, with my three-quarter ration plan, I should still be eating food packs. But three-quarter ration is hard to maintain, so now I'm eating potatoes. I have enough to last till launch, so I won't starve. But I'm pretty damn sick of potatoes. Also, they have a lot of fiber, so...let's just say it's good I'm the only guy on this planet. I saved five meal packs for special occasions. I wrote their names on each one. I get to eat "Departure" the day I leave for Schiaparelli. I'll eat "Halfway" when I reach the 1600-kilometer mark, and "Arrival" when I get there. The fourth one is "Survived Something That Should Have Killed Me" because some fucking thing will happen, I just know it. I don't know what it'll be, but it'll happen. The rover will break down, or I'll come down with fatal hemorrhoids, or I'll run into hostile Martians, or some shit. When I do (if I live), I get to eat that

meal pack. The fifth one is reserved for the day I launch. It's labeled "Last Meal." Maybe that's not such a good name. (266)

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Since Sol 6 all I've wanted to do was get the hell out of here. Now the prospect of leaving the Hab behind scares the shit out of me. I need some encouragement. I need to ask myself, "What would an Apollo astronaut do?" (271)

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Chapter 21

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I'm out of caffeine pills. No more Martian coffee for me. So it took a little longer for me to wake up this morning, and I quickly developed a splitting headache. One nice thing about living in a multibillion-dollar mansion on Mars: access to pure oxygen. For some reason, a high concentration of O₂ will kill most headaches. Don't know why. Don't care. The important thing is I don't have to suffer. (277)

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Back on Earth, universities and governments are willing to pay millions to get their hands on Mars rocks. I'm using them as ballast. (281)

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When you cook food, the proteins break down, and the food becomes easier to digest. I'll get more calories out of it, and I need every calorie I can get my hands on. (287)

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I've got two full batteries, all systems are go, and I've got forty-five sols of driving ahead of me. Schiaparelli or bust! (288)

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Chapter 22

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"We're speaking with our frequent guest, Dr. Venkat Kapoor. Dr. Kapoor, I guess what people want to know is, is Mark Watney doomed?" "We hope not," Venkat responded, "but he's got a real challenge ahead of him." (289)

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In other news, my equipment is starting to show signs of age. Not surprising, considering it's way the hell past its expiration date. For the past two sols, the batteries have taken longer to recharge. The solar cells just aren't producing as much wattage as before. It's not a big deal, I just need to charge a little longer. (297)

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Chapter 23

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I have an interesting opportunity here. And by "opportunity" I mean Opportunity. I got pushed so far off course, I'm actually not far from the Mars exploration rover Opportunity. It's about 300 kilometers away. I could get there in about four sols. (308)

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Chapter 24

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As soon as the rover toppled, I curled into a ball and cowered. That's the kind of action hero I am. It worked, too. 'Cause I'm not hurt. (314)

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I started the day with some nothin' tea. Nothin' tea is easy to make. First, get some hot water, then add nothin'. I experimented with potato skin tea a few weeks ago. The less said about that the better. (320)

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If I get back to Earth, I'll be famous, right? A fearless astronaut who beat all the odds, right? I bet women like that. (322)

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Chapter 25

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Sometimes I miss the days when I made all the decisions myself. Then I shake it off and remember I'm infinitely better off with a bunch of geniuses deciding what I do than I am making shit up as I go along. (336)

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[19:29] JOHANSEN: When we pick you up, I will make wild, passionate love to you. Prepare your body.

[19:29] JOHANSEN: I didn't type that! That was Martinez! I stepped away from the console for like 10 seconds!

[19:29] MAV: I've really missed you guys. (339)

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They're not telling me the failure odds, but I'm guessing they're the highest in history. Yuri Gagarin had a much more reliable and safe ship than I do. And Soviet ships were death traps. (339)

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It wouldn't be so bad if the MAV blew up. I wouldn't know what hit me, but if I miss the intercept, I'll just float around in space until I run out of air. I have a contingency plan for that. I'll drop the oxygen mixture to zero and breathe pure nitrogen until I suffocate. It wouldn't feel bad. The lungs don't have the ability to sense lack of oxygen. I'd just get tired, fall asleep, then die. (343)

=====

I have no more jobs to do, and no more nature to defeat. I've had my last Martian potato. I've slept in the rover for the last

time. I've left my last footprints in the dusty red sand. I'm leaving Mars today, one way or another. About fucking time. (343)

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Chapter 26

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Directly in his field of view, the Hab canvas patch flapped violently as the ship exponentially gained speed. Concentration became difficult, but something in the back of his mind told him that flapping was bad. (347)

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I broke two ribs during the MAV ascent. They were sore the whole time, but they really started screaming when Vogel pulled us into the airlock by the tether. I didn't want to distract the people who were saving my life, so I muted my mic and screamed like a little girl. It's true, you know. In space, no one can hear you scream like a little girl. (370)

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After Johanssen gave us the all clear, Dr. Bossy-Beck made me wait while he first took off his suit, then took off mine. After he pulled my helmet off, he looked shocked. I thought maybe I had a major head wound or something, but it turns out it was the smell. It's been a while since I washed...anything. (371)

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The cost for my survival must have been hundreds of millions of dollars. All to save one dorky botanist. Why bother? Well, okay. I know the answer to that. Part of it might be what I represent: progress, science, and the interplanetary future we've dreamed of for centuries. But really, they did it because every human being has a basic instinct to help each other out. It might not seem that way sometimes, but it's true. If a hiker gets lost in the mountains, people will coordinate a search. If a train crashes, people will line up to give blood. If an earthquake levels a city, people all over the world will send emergency

supplies. This is so fundamentally human that it's found in every culture without exception. Yes, there are assholes who just don't care, but they're massively outnumbered by the people who do. And because of that, I had billions of people on my side. Pretty cool, eh? Anyway, my ribs hurt like hell, my vision is still blurry from acceleration sickness, I'm really hungry, it'll be another 211 days before I'm back on Earth, and, apparently, I smell like a skunk took a shit on some sweat socks. This is the happiest day of my life. (371)

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