Single Point Failure

Screenplay by Chaz Valenza

Based on the book

"Challenger Revealed:
An Insider's Account of How
the Reagan Administration
Caused the Greatest Tragedy
of the Space Age"

by Richard C. Cook

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FADE IN

EXT. OCEAN - OPEN WATER - DAY

Blue sky above a fearsome chop.

SUPER: "T + 03 mins 38 secs" (counting up)

NASA FLIGHT COMMENTATOR (V.O.)

(Filtered.)

We have a report from the flight dynamics officer that the vehicle has exploded.

SUPER: "January 28, 1986"

In the distance, burning debris falls leaving swirling, smoky contrails before hitting the water. Geysers erupt from the water's surface, first here then there, coming ever closer. An ear-splitting shock wave SCREAMS, then...

WHAM! A large white object, scorched and burned, hits just feet away and explodes in a wave of water and debris. The chop swiftly smooths and covers the remains.

A yellow-brown haze hangs in the air as a shower of twisting silver and black confetti begins and grows heavier.

INT. AUDITORIUM - STAGE - PODIUM - DAY

LARRY MULLOY, 50's; a stocky man in a baggy suit. A concerned look on his face. His speaking cadence a bit rushed.

SUPER: "PRESIDENTIAL COMMISSION - CHALLENGER ACCIDENT"

LIVE AND ON VIDEO MONITORS:

SUPER: "LAWRENCE MULLOY - SOLID ROCKET BOOSTER MGR / MARSHALL SPACE FLIGHT CTR"

MULLOY

The process is to make something a criticality three that isn't. If not, can you make it a criticality two? If you can't make it a criticality two, which is simply loss of mission and no loss of life, then can you make it redundant?

(MORE)

MULLOY(cont'd)

And, if you can't make it redundant, is it a reasonable risk to continue with the single failure of the system leading to a catastrophic failure?

STANLEY REINARTZ, 52, wears black frame glasses and an inexpensive black suit. His voice is monotone and matter of fact.

SUPER: "STANLEY REINARTZ - SHUTTLE PROJECTS DIR / MARSHALL SPACE FLIGHT CTR"

REINARTZ

Mr. Mulloy and I had a short discussion relating to the general nature of the concerns with Dr. Lucas at the motel.

DR. WILLIAM LUCAS, 64, a large forehead and small eyes top a tall frame. His voice conveys confidence and conviction.

SUPER: "DR. WILLIAM LUCAS - DIR / MARSHALL SPACE FLIGHT CTR"

LUCAS

Mr. Reinartz and Mr. Mulloy came to my motel room. Thiokol had raised concerns about the solid rocket boosters. About five a.m. the next morning at launch control they told me the issue had been resolved.

ARNOLD ALDRICH, 49. His business attire a bit unkempt due to his overgrown size and weight. He takes time to think before speaking.

SUPER: "ARNOLD ALDRICH/ SPACE TRANSPORTATION SYS MGR / JOHNSON SPACE CTR"

ALDRICH

They reported they were go for launch, which would include those temperatures, yes, sir. I would like to have you specifically ask that to the Marshall Project Director, Dr. Lovingood.

JUD LOVINGOOD, 49, a southern drawl and a sunny disposition.

SUPER: "DR. JUDSON LOVINGOOD - DEPUTY DIR SHUTTLE PROJECTS / MARSHAL SPACE FLIGHT CTR"

LOVINGOOD

I called Stanley Reinartz at the motel and suggested that he alert Arnie Aldrich that we were going to get together at the center that evening and decide what to do.

JESSE MOORE, 56, a no nonsense manager, serious and dark.

SUPER: "JESSE MOORE, NASA SPACE FLIGHT ADMINISTRATOR"

MOORE

My task force is just getting started, Mr. Chairman, and I see it running for many months, and no system has been checked off as being completely exonerated from any cause of the incident.

EXT. OFFICE BUILDING - ENTRANCE - DAY

Bundled up against the cold, briefcase in hand, RICHARD (RICK) COOK, 39, tall, fit and mustached hustles to catch the lobby door swung open before him.

INT. OFFICE BUILDING - NEWSROOM - DAY

Cook, red and sniffling from the cold, follows PHIL BOFFEY, 30's; a sleeves rolled up reporter though the newsroom.

CONFERENCE ROOM

Boffey closes the door, shutting out the newsroom CLAMOR.

BOFFEY

Mr. Cook, mind if I take a look at your NASA ID?

Cook hands it over. Boffey peruses it and hands it back.

BOFFEY (cont'd)

Sorry. I have to be careful that you're really a source.

Cook carefully opens his briefcase and deals out documents.

COOK

They call this one the Death Document. It's a criticality one waiver.

BOFFEY

And you wrote this one back in July of last year?

COOK

Yes, but this is the smoking gun. He signed off on this in eighty-two.

BOFFEY

I'll need to have all of these.

COOK

I have to emphasize that I don't want my name brought into this.

BOFFEY

I understand. I guarantee that your identity will be protected.

(Cook considers.)
Mr. Cook, New York Times reporters
will go to jail before disclosing
their sources. You can count on it.

INT. AUDITORIUM - STAGE - DAY

Using crutches, Cook limps across the stage to a podium, notes in hand. The auditorium swarms with REPORTERS, PHOTOGRAPHERS, TELEVISION CREWS, BUREAUCRATS and LOBBYISTS.

SUPER: "PRESIDENTIAL COMMISSION - CHALLENGER ACCIDENT"

LIVE AND ON VIDEO MONITORS:

Members of the Commission: Table placards give their names: "NEIL ARMSTRONG", "DAVID ACHESON", "RICHARD FEYNMAN", "DONALD KUTYNA", "SALLY RIDE", "ROBERT HOTZ", "ARTHUR WALKER JR", and...

"WILLIAM ROGERS", 70's; fulsome, paternal and bespectacled. His face is soft and kind. His voice calm and reassuring.

SUPER: "RICHARD COOK, PROGRAM ANALYST / NASA"

Cook, showing a determined face, fidgets with his jacket, pushes his glasses up and arranges his notes on the podium as he listens.

ROGERS

Mr. Cook. The Commission asked you to appear today because of recent newspaper stories concerning particularly a memorandum which you wrote. This memo was sent to your superior?

COOK

Yes, sir.

ROGERS

And your focus was primarily budgetary, is that correct?

COOK

Yes, sir.

ROGERS

You were not involved in the New York Times publication of the document yourself, is that correct?

COOK

No, I was not.

EXT. OCEAN - OPEN WATER - DAY

The crash sequence in reverse.

Silver and black fragments lift off the surface of the water and float up into the sky. A wave of water and debris is sucked into the sea.

SUPER: "T + 03 mins 19 secs" (counting down/backward)

AHWAP! A large white object, scorched and burned, rockets out of the water. A shock wave BLARES and trails off into silence.

In the distance, pieces of burning debris blast-off the water gobbling up smoky, swirling contrails. Fearsome chop below a blue sky.

INT. FORT MYER OFFICERS' CLUB - BALLROOM - NIGHT

A grand military wedding is in progress. The Groom, in Navy Dress Whites, kisses his Bride. The room erupts in cheers and applause. The Leader of a fifteen-piece orchestra strikes-up a slow swing era dance number. SUPER: "FORT MYER OFFICERS' CLUB - APRIL, 1980"

ROBERT (BOB) BOWMAN, 46, tall and imposing in Air Force Mess Dress, leads his WIFE onto the crowded dance floor. Before they can complete a couple of turns Bowman is flanked by a Cadet who hands him a note.

BOWMAN'S WIFE

Colonel, this is like old times. Did you reenlist?

BOWMAN

Well, it seems I retired from the Air Force but I didn't retire from service.

BOWMAN'S WIFE

Please, don't be long.

BOWMAN

I know an order when I hear one.

He kisses her on the cheek. She smiles as he strides away.

INT. MYER OFFICERS' CLUB - BAR/LOUNGE - NIGHT

JAMES BEGGS, 54, a tall, handsome American aristocrat in a finely tailored suit, stands as Bowman enters. Two drinks, one untouched, sit on the table.

BEGGS

Colonel Bowman, thank you.

They shake hands and take seats.

BEGGS (cont'd)

I believe that's your drink?

BOWMAN

Well, here's to a man who does his homework.

(They toast.)

What can do for you, Mr. Beggs. My wife and I have grandchildren. We don't get out all that often.

BEGGS

I've been asked to be the head of NASA.

Bowman's chin hits his chest as he shakes his head.

BOWMAN

Mr. Beggs, I'm in the private sector now. But, I can tell you this, the Air Force hates the shuttle and that's not going to change.

BEGGS

I understand that. I could still use your help. I'm told you know what the Pentagon is going to need, both now and in the future.

Bowman sips his drink. And points to a television above the bar.

SERIES OF SHOTS: ON TELEVISION (ROTATING) MOS

- A) The burned out skeleton of a C-150 cargo plane in the dessert. (ARCHIVE PHOTO)
- B) A composite photo of six headshots of servicemen lost in the 1980 Tehran hostage rescue attempt. (ARCHIVE PHOTO)
- C) A somber President Jimmy Carter at a podium speaking to the press. (ARCHIVE FOOTAGE)
- D) News animation graphic: eight helicopters, two crashing in an area marked "IRAN". (ARCHIVE FOOTAGE)
- E) Helicopter wreckage in the dessert. (ARCHIVE PHOTO)

BOWMAN

Do you know why this rescue was doomed? It was too complex, just like NASA's space shuttle.

BEGGS

I'm looking for two things. One, what payload can the military live with? And, two, an analysis of the projected launch rate. I want an honest assessment.

Bowman considers.

EXT. KENNEDY SPACE CTR (KSC) - LAUNCH PAD - VAN - DAY

The rear doors of the "Astrovan" open. Wearing spacesuits, Astronauts JOHN YOUNG, 51, and ROBERT CRIPPEN, 44, exit the vehicle and make their way to the gantry.

SUPER: "APRIL 12, 1981"

NEWSCASTER (V.O.)

Here's Apollo astronaut and moonwalk veteran John Young. With him, space rookie Commander Robert Crippen as they make their way to what has to be the boldest test flight in history.

NEWS COMMENTATOR (V.O.) That's no understatement.

THE SPACE SHUTTLE COLUMBIA ON THE PAD

NEWS COMMENTATOR (V.O.) (cont'd) So many firsts will happen on this test mission. It's the first manned flight where liquid oxygen and hydrogen will be used as rocket fuel in earth's atmosphere.

ANIMATION OF SOLID ROCKET BOOSTER SEPARATION

NEWS COMMENTATOR(V.O.) (cont'd) The first use of reusable solid rocket boosters. Once they're fired, they cannot be shutdown.

ANIMATION OF ORBITER REENTRY HEAT

NEWS COMMENTATOR (V.O.) (cont'd) The first test of this new reentry protection system, thousands of custom-made thermal tiles. And, finally...

ANIMATION OF ORBITER LANDING

NEWS COMMENTATOR (V.O.) (cont'd) The first spacecraft to land like a plane. However, it will be a deadstick landing, no power. It falls from orbit like a rock with wings.

SPACE SHUTTLE STACK - FROM BASE

NASA FLIGHT COMMENTATOR (V.O.) T minus ten, nine, eight, seven, six, five, four... We've gone for main engine start.

NEWS COMMENTATOR (V.O.) Crippen will only get one shot at hitting the runway upon return. And here we go.

SERIES OF SHOTS:

- A) Solid rocket boosters fire.
- B) Rocket pinions and braces explode.
- C) The launch vehicle begins to move.
- D) The Shuttle clears the tower.

REPORTERS AND TELEVISION CREWS

Watch from afar, cheer and jump, arms extended into the air.

FLIGHT DIRECTOR (V.O.)

Go at forty.

CRIPPEN (V.O.)

(Filtered.)

Roger, go at forty.

INT. FORT MYER OFFICERS' CLUB - BAR/LOUNGE - DAY

The Bartender polishes wine glasses as he watches an overhead television. The lounge empty except one table where Beggs sits.

SUPER: "AUGUST 3, 1981"

ON TELEVISION:

An angry picket line of striking Air Traffic Controllers at JFK airport, NYC. (ARCHIVE FOOTAGE)

President RONALD REAGAN speaking from a podium in the White House rose garden. (ARCHIVE FOOTAGE)

REAGAN

If they do not report to work within forty-eight hours they have forfeited their jobs and will be terminated.

BAR TABLE

Bowman's arrival goes unnoticed by Beggs who is focused on the television.

BOWMAN

The old man is wasting no time setting the tone.

Bowman sits.

BOWMAN (cont'd)

Word is he's going to call for a onehundred and eighty billion dollar expansion in military spending.

BEGGS

NASA can't fly without some of that money.

BOWMAN

Be careful what you wish for.

BF

So, can we do it, Bob? A hundred and sixteen trips by the end of eighty-five?

Bowman hands Beggs a bound report.

BOWMAN

Pigs will fly first, James.

BEGGS

Okay, seventy-five flights? That puts the per flight cost at say twenty-eight million per launch.

Bowman shakes his head "no." Beggs flips open the report.

BEGGS (cont'd)

Come-on. What then?

BOWMAN

Twenty-four flights through the end of eighty-five. Two-hundred million dollars per launch.

(MORE)

BOWMAN(cont'd)

If you're lucky you'll get to twohundred flights by the end of ninetyfour.

BEGGS

That can't be right.

BOWMAN

It's all in there. Too many decisions have already been made.

BEGGS

Apollo launches were only a hundred million each.

BOWMAN

And, you still have that pesky payload problem. The Pentagon needs thirty tons and a booster to reach polar orbit from a West Coast launch. No easy feat.

BEGGS

Dr. Lucas believes we can get there.

INT. HOUSE OF REPRESENTATIVES - PODIUM - NIGHT (ARCHIVE FOOTAGE)

President RONALD REAGAN addressing Congress.

SUPER: "STATE OF THE UNION - 1982"

REAGAN

We don't have to turn to our history books for heroes. They're all around us... Lenny Skutnik ...dove into the ice choked Potomac River... Jeremiah Denton... caught sight of our flag, saluted and said, God bless America...

EXT. THE WHITE HOUSE - WEST WING LOBBY ENTRANCE - DAY

JAMES BAKER, 52, wearing a fine overcoat and toting an expensive briefcase exits from the rear door of a black sedan.

INT. WEST WING - OUTER OFFICES - DAY

Baker arrives at his SECRETARY'S desk and is handed his messages.

BAKER'S SECRETARY Good morning, Mr. Baker.

BAKER

(Taking his messages.) Good morning. Thank you.

CHIEF OF STAFF'S OFFICE

At his desk, Baker flips through the phone messages, picks one out for immediate attention and opens a small desk drawer.

INSERT: DESK DRAWER - CALENDAR

The drawer contains only a small calendar open to March 1983.

Barker removes the calendar and places it on his desk. Each date is highlighted in either green, yellow or pink. Baker's finger finds March 23, 1983 marked in green.

BACK TO SCENE

Baker closes the calendar, replaces it in the drawer and dials his phone.

BAKER (cont'd)

(On phone.)

Mrs. von Damm? Good morning. Would you inform the President that March 23rd is a good day? Thank you.

INT. FORT MYER OFFICERS' CLUB - BAR/LOUNGE - NIGHT

Filled with MEN in military uniform, business suits and golf togs.

SUPER: "MARCH 23, 1983"

Some drink and converse, but most focus on the bar television watching President Reagan speaking from the Oval Office. Among them are Bowman and Beggs.

At the bar, a MARINE LIEUTENANT entertains his buddies.

MARINE LIEUTENANT

...so, I tell him. I did pack the bearings. They're in a FedEx box all ready to go!

The Lieutenant's buddies guffaw, annoying a uniformed NAVY CAPTAIN trying to concentrate on the television.

NAVY CAPTAIN

Hey! Quiet. Keep it down for a second.

All eyes on the television. The Bartender boosts the sound.

ON TELEVISION: (ARCHIVE FOOTAGE)

PRESIDENT REAGAN

What if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. retaliation to deter a Soviet attack...?

BOWMAN AND BEGGS

BOWMAN

This is it, James.

ON TELEVISION:

PRESIDENT REAGAN (O.S.)

...that we could intercept and destroy strategic ballistic missiles before they reached our own soil...

NAVY CAPTAIN

Yahooooo!

A BUSINESS MAN beside him stares at the television in disbelief.

BUSINESS MAN

He's going to do it.

NAVY CAPTAIN

He's going to do it!

They hug, high five and do a dance.

BUSINESS MAN

Where's a phone? I've got to call my boss.

The Business Man runs out of the room.

BEGGS

(To Bowman.)

Who was that?

The celebration is contagious as the message sinks in with the bar crowd.

BOWMAN

Martin Marrietta? Lockheed? Grumman? Take your pick James. They're all going to make a fortune.

The Navy Captain starts everyone in song.

BAR PATRONS

(Singing.)

Happy days are here again...

Bowman lifts his glass.

BOWMAN

The President is going to buy the county a missile shield. And, your shuttle is going to carry all the parts into orbit. As the man said in Jaws, you're going to need a bigger boat.

BEGGS

Isn't this what you've been working
on? Why aren't you singing?

BOWMAN

I told them it's never going to work. Too complex.

EXT. KSC - SHUTTLE LAUNCH PAD - DAY

Space Shuttle Discovery clearing the tower.

FLIGHT COMMENTATOR (V.O.)

And we have lift-off of the space shuttle Discovery on its way to a three day classified Department of Defense mission.

INSERT: CALENDAR ON THE CHIEF OF STAFF'S DESK

A finger passes over yellow and pink highlighted dates until it finds October 25, 1983 in green. The calendar is placed in its drawer.

TELEVISION VIDEO - WHITE HOUSE PRESS ROOM - DAY

Press Secretary LARRY SPEAKS, 40's, at the podium faces an excited Press Corps.

SUPER: "OCTOBER 25, 1983"

REPORTER

Why did we invade today? Didn't we have information that Americans would be safe?

SPEAKS

The U.S. disregarded Cuban and Grenadan assurances that U.S. citizens would be safe because it was a floating craps game and we didn't know who was in charge.

INT. HOUSE OF REPRESENTATIVES - PODIUM - NIGHT (ARCHIVE FOOTAGE)

President Ronald Reagan addressing Congress.

SUPER: "STATE OF THE UNION - 1984"

REAGAN

Barbara Proctor... Carlos Perez... Sergeant Stephen Trujillo... Father Ritter... Dr. Charles Carson... People like these are heroes for the eighties.

EXT. DRIVEWAY AT RURAL ROAD - DAY

A roadside mailbox marks a gravel driveway bordered by woods and shrouded in a thick fog. A transmission WHINES in reverse. Red taillights weave back and forth in the mist, glowing brighter as the vehicle picks up speed.

The rear of a large, white passenger van appears and clips the mailbox snapping the post in two. The van stops short.

Cook, dressed for work, exits the van and steps carefully through the thick, wet undergrowth to the broken post. Realizing there's no easy repair, he steps back to the van, leans out the open door, completes the reverse maneuver, slams the door shut and peels off.

INT. HOUSE OF REPRESENTATIVES - PODIUM - NIGHT (ARCHIVE FOOTAGE)

President Ronald Reagan addressing Congress.

SUPER: "STATE OF THE UNION - 1985"

REAGAN

I thought you'd like to meet an American hero named Jean Nguyen... Mother Hale of Harlem and she, too, is an American Hero.

INT. NAT'L AIR & SPACE MUSEUM - DAY

The Spirit of St. Louis above the throng of visitors.

SUPER: "JULY, 1985"

Cook's son TIM, 10, drags his father by the hand.

TIM

I want to see about the space shuttle. I know where it is.

COOK

Okay, okay.

SPACE SHUTTLE EXHIBIT

Backlit photographs of the Space Transportation System.

VIDEO SCREEN IN DISPLAY

DRAMATIC MUSIC comes up and a white plastic model of the space shuttle appears.

NARRATOR (V.O.)

Enter the shuttle. It's the first reusable space vehicle.

The visual changes to artist's renditions of various shuttle designs with limited animation.

NARRATOR (V.O.) (cont'd) Satellites may be placed in orbit, returned to earth or even repaired in orbit.

SPOOKY THEREMIN MUSIC

NARRATOR (V.O.) (cont'd)

With the shuttle orbiter we're entering a new era in space.

Tim arrives at the display.

TIM

I read all about this. This tank carries the oxygen and hydrogen for the main engines.

COOK

You know quite a bit. Maybe you can help me. Tomorrow I start work at NASA on the space shuttle.

TIM

You're going to work for NASA on the Shuttle?!

Cook shows TIM his NASA ID.

COOK

Just got the job. You're the second person to know.

TIM

I'm going to tell the kids at school. Can I tell my mom?

COOK

Well, if she asks.

MIT

She's not going to ask.

COOK

Sure. You can tell your mom.

TTM

Hey, maybe you'll get to go on the shuttle!

COOK

That would make me the first NASA budget analyst in space, but nice try.

INT. NASA OFFICES - COOK'S OFFICE - DAY

JIM BRIER, 50's; a chubby, droning geek, writes and draws quickly on a blackboard as he lectures Cook.

BRIER

The external tank separates from the orbiter, okay, and breaks up into millions and millions of little aluminum fragments, okay...

ALICE, 32, African American, the office suite assistant, still the perky girl she was ten years ago when she started this great job, pops her head in.

ALICE

Knock, knock. May I interrupt?

BRIER

Yes. Just let me complete this thought, okay? The tank itself is so light that after it is assembled...

ALICE

Mr. Cook, these forms must be completed by COB.

She holds out a thick file to Cook.

BRIER

... it must be pressurized, okay, so it does not collapse of its own weight, okay. Then, carefully...

COOK

Today?

ALICE

(Leaving.)

Close of business! That is today, isn't it, Mr. Cook?

BRIER

...loaded onto a barge, okay, and is floated into the Gulf of Mexico and around the Florida peninsula to the Kennedy Space Center Then...

MICHAEL MANN, 50's; crew cut, tall, wiry and very serious, appears front and center in Cook's doorway.

MANN

Mr. Cook.

Brier nearly comes to attention. Mann shoots a stiff arm out at Cook who winces at Mann's jaw trap grip.

MANN (cont'd)

Sorry to cut you off, Mr. Brier. But I need Mr. Cook.

BRIER

Yes, sir. We'll pick it up after lunch, okay, Rick?

Mann does an about face leaving Cook to catch up.

OUTER OFFICE

Mann passes Alice at her desk. Cook is steps behind.

ALICE

Will you be gone long, Mr. Cook?

MANN (O.C.)

Rick, are you with me?

COOK

(To Alice.)

I don't know.

INT. NASA OFFICES - CORRIDOR - CONTINUOUS

Mann marches out of the office suite, Cook catches up and matches his pace.

MANN

You know why you're here, don't you?

COOK

To keep my areas of the project on time and on budget.

Mann stops short.

MANN

No. You're here because we got ya' cheap. Cook, your work history looks more like a game of hopscotch. With your experience, you should have come in a couple pay grades higher. Two things. I suggest you get yourself a decent haircut and keep your shoes shined.

Mann starts marching. Cook, steps behind, hustles to catch-up. Mann stops short.

MANN (cont'd)

Your job <u>is</u> to keep the project in line. The program people are not your friends. There's never enough money to do every crappy little thing they want.

COOK

I understand.

MANN

Good. I want you to go over to Code M and find out what the problem is with the O-rings.

COOK

Yes, sir. What are O-rings?

MANN

Ask Brier.

COOK

(To himself.)

What's Code M?

EXT. WASHINGTON, D.C. - MARYLAND AVE & SIXTH ST - DAY

At the intersection, PEDESTRIANS rush by Cook to cross against the light. Cook waits, then crosses on the green.

INT. NASA HQ - WETZEL'S OFFICE - DAY

Supervising Engineer, PAUL WETZEL, late 50's; obese, mustached and sloppy, paces as he incessantly tucks the errant tails of his wrinkled shirt into his pants. His subordinate, PAUL HERR, 40's; short, short-sleeved shirt and short hair calmly watches him.

Cook arrives.

COOK

Hi, I'm Rick Cook from Code B.

Handshakes.

HERR

I'm Paul Herr, Mr. Cook, and this is my supervisor Paul Wetzel.

COOK

Paul and Paul. Great to meet you gentlemen.

They take seats and smile nervously at each other. Wetzel fidgets. Herr tries to find first words, but can't.

COOK (cont'd)

You guys can call me Rick, okay?

HERR

Rick, okay, Rick.

WETZEL

Right. Good. Rick.

COOK

O-rings?

Wetzel give Herr a nod.

HERR

Do you know what an O-ring is?

COOK

The rubber washers in the joints of the solid rocket boosters.

HERR

That's right!

COOK

Brier clued me in.

WETZEL

Oh, good. Brier's a great guy.

HERR

Well, anyway we've had...

WETZEL

...an anomaly.

HERR

Well, it was on the April flight. Not only was the first O-ring destroyed, but the second was...

WETZEL

(Snacking on nuts.) ...eaten away.

COOK

Eaten away?

HERR

It was almost gone.

COOK

Do you know why?

HERR

We're trying to figure that out now. Everyone's trying to figure that out.

COOK

By anomaly you mean a freak event?

WETZEL

Well, that's what it was called.

HERR

But it's not.

WETZEL

There's something wrong.

COOK

How wrong?

HERR

Toward badness, we keep seeing it.

COOK

Who knows about this?

HERR

Everybody. The Marshall guys. The Thiokol team, ah... we've had discussions with the top players here at Code M. Jesse Moore. Mr. Beggs. They all know.

COOK

So what's going on?

HERR

It seems the first O-ring seats properly, but when the rocket ignites, the second O-ring is out of place.

WETZEL

We're seeing blowholes in the putty.

HERR

Right at liftoff the segments of the boosters bulge.

Wetzel makes a ballooning gesture with his hands.

WETZEL

We call it joint rotation.

COOK

When will you know more?

Herr looks to Wetzel.

WETZEL

Thirty-days, maybe.

COOK

Enough to fix it?

HERR

Hey, first we've got to know the cause. It could be a cinch to fix.

WETZEL

Or, it might be worse.

COOK

Like?

HERR

Ground-up redesign. Have to scrap everything.

WETZEL

But there's something else we think you should know.

COOK

Okay.

HERR

We can say, with a high degree of certainty, right now, flight safety is on the table.

COOK

On the table?

WETZEL

Compromised right now.

COOK

Flight safety?

(Herr and Wetzel nod.)

How much?

HERR

If one of these seals fails during launch it will be catastrophic.

COOK

Catastrophic means?

HERR

The shuttle will blow up.

WETZEL

Right on the launch pad.

COOK

The crew? Could they escape?

HERR

There would be no warning.

WETZEL

We're talking milliseconds, Rick.

HERR

Rick, we hold our breath every time this thing goes up.

WETZEL

We do.

COOK

Okay.

(Cook waits, but they're
done.)

Okay, thank you very much.

WETZEL

Sure, thank you.

HERR

Rick, you understand what we're saying, right?

COOK

I think you've explained the situation very well.

INT. NASA HQ - CORRIDOR - DAY

Cook exits Wetzel's office totally absorbed in his thoughts. Business as usual bustles around him.

INSERT: COMPUTER SCREEN - TYPING

"SUBJECT: Problem with SRB Seals"

EXT. INTERSECTION MARYLAND AVE. & SIXTH ST - DAY

Cook stands among a handful of other PEDESTRIANS who see an opening in the traffic and hustle across the street. Preoccupied, Cook follows them a bit too slowly. A car stops short so as not to hit him.

INSERT: COMPUTER SCREEN - TYPING

"...flight safety has been and is still being compromised."

INT. NASA OFFICES - ELEVATOR - DAY

The elevator doors open. Cook steps off and looks around. OFFICE WORKERS smile at him as they go by.

INT. NASA OFFICES - COOKS OFFICE - DAY

Cook puts down a coffee cup after taking a sip.

INSERT: COMPUTER SCREEN - TYPING

"It is acknowledged that failure during the launch would certainly be catastrophic."

The cursor blinks against the green monochrome screen.

INT. NASA OFFICES - MANN'S OFFICE - DAY

Cook peeks in, empty. He takes a fast look around.

A Photo of Mann and his family

A Photo of Mann with military and government officials in front of an Abrams Tank.

Cook places the memo squarely on Mann's desk chair.

INT. COOK'S PASSENGER VAN - NIGHT

Cook drives as LIZ, late 20's; sporting a nicely trimmed "I'm black and I'm proud Afro," enjoys a soda in one hand and burger in the other. She sings along to a Motown tune on the RADIO. Cook is amused.

LIZ

You like my singing.

COOK

You've got a good voice, Liz.

Behind them the van's seats are filled with sleeping GOVERNMENT WORKERS.

LIZ

Thank you.

COOK

I want you to know, you're doing a great job as back-up driver.

LIZ

That's good because it's great not having to pay for my commute.

Liz finishes up her meal with a long noisy slurp on her soda straw. She rolls down her window and chucks the cup out.

Cook can't believe his eyes.

Liz stuffs the rest of the fast food trash in the bag, nonchalantly gives that the heave ho, and sees Cook staring at her.

LIZ (cont'd)

You didn't like that did you?

COOK

No. Why did you do that?

LIZ

I don't know. I didn't think it mattered, I guess. I won't do it again. Okay?

COOK

Okay.

EXT. KSC - SHUTTLE LAUNCH PAD - DAY

The Space Shuttle Challenger ready for lift off.

INT. NASA HQ - CODE M CONFERENCE ROOM - DAY

Cook, Wetzel and Herr sit watching a video monitor.

ON SCREEN: NASA SELECT

The shuttle's main engines fire and seconds later the solid rocket boosters ignite.

The rocket clears the tower.

INT. JOHNSON SPACE FLIGHT CTR (JSFC) - MISSION CONTROL - DAY

CLEON LACEFIELD, Ascent Flight Director, keeps a close eye on main TELEMETRY display. Standing nearby is JAY GREENE, 40's; parted mop haircut.

On a VIDEO SCREEN is Challenger's ascent.

SRB DYNAMICS(O.C.)

We have SRB separation at two minutes, six seconds.

INT. CODE M CONFERENCE ROOM

Cook, Wetzel and Herr watch the screen.

ON SCREEN:

The solid rocket boosters fall away.

INT. MISSION CONTROL

Lacefield watches the launch video.

SRB DYNAMICS (O.S.)

SRBs safe away.

INT. CODE M CONFERENCE ROOM

Wetzel and Herr give each other a "we're okay" look.

NASA FLIGHT COMMENTATOR (V.O.)

At five minutes, forty-seconds into the flight of Challenger, all systems are looking good.

INT. MISSION CONTROL

Intent on his computer screen, the MAIN ENGINE DYNAMICS officer has an "oh-shit" moment.

MAIN ENGINES DYNAMICS

I have one main engine shut down. Overheat condition.

INT. CODE M CONFERENCE ROOM

IRV DAVIDS, 40's, trim, intense, and straight as an arrow, leans in next to Herr.

DAVIDS

What the heck just happened? Did you see that?

HERR

Rick, this is Irv Davids, he works with us on the SRB, he does booster assembly, parachutes and paraphernalia.

INT. MISSION CONTROL

Lacefield responds without thinking.

LACEFIELD

Challenger, one main engine down, go to abort-to-orbit sequence. That's alpha-tango-oscar now.

Challenger Captain Fullerton, CAPCOM, responses.

CAPCOM (O.C.)

(Filtered.)

Roger, commence ATO, alpha-tango-oscar.

INT. CODE M CONFERENCE ROOM

Herr looks to Wetzel, who stares at his wristwatch.

HERR

Where are we boss?

WETZEL

Just over six minutes.

INT. MISSION CONTROL

The Main Engine Dynamics officer has second "oh-shit" moment.

MAIN ENGINE DYNAMICS

High heat main engine two.

LACEFIELD

Main Engine Systems?

The MAIN ENGINE SYSTEMS officer does one quick screen scan, then another not so quickly.

LACEFIELD (cont'd)

Main Engine Systems, analysis?

MAIN ENGINE SYSTEMS

Probable sensor failure.

LACEFIELD

Give me a number.

MAIN ENGINES SYSTEMS

Ninety percent.

LACEFIELD

Challenger, override high heat engine two.

CAPCOM (O.C.)

(Filtered)

Roger, override high heat.

INT. CODE M CONFERENCE ROOM

The SRB team is glued to the screen. Wetzel checks his watch.

WETZEL

Come on.

NASA FLIGHT COMMENTATOR (V.O.)

STS fifty-one F, Challenger

spacecraft, has achieved earth orbit.

INT. MISSION CONTROL

Lacefield does a last check of his telemetry screen.

LACEFIELD

Orbit one complete. Mission Control flight orbit two is now in control.

Lacefield takes off his headset and turns to Greene.

GREENE

Great job, Cleon.

LACEFIELD

Thanks, Jay.

(They shake hands.)

We can never turn our backs to the ocean, can we?

GREENE

No, sir. Got to respect that power.

LACEFIELD

Hey, I hear tell you're being groomed for bigger things. You deserve it, Jay.

GREENE

Thanks.

INT. NASA HEADQUARTERS - CORRIDOR - DAY

Cook walks with Wetzel who stops at a water cooler.

COOK

Was that close?

WETZEL

Maybe. I'll let you know.

COOK

Do you think they'll ground the shuttle for a while?

WETZEL

Rick, they're not going to stop flying, ever.

INT. JSFC - PRESS ROOM - DAY

Greene faces the press corps from a draped table. BILL BRADEN, 40's; of the New York Times stands.

BRADEN

Bill Braden of the New York Times. Jay, do you find it ironic that a safety device was the apparent cause of today's malfunction?

GREENE

It is an issue you can be sure everyone at NASA will be looking at closely.

Greene points to report JAMES FISHER, 40's.

FISHER

James Fisher, Orlando Sentinel. What would have been the outcome of a second engine shut down?

GREENE

James, you know we have an aversion to theoretical questions, but anyone familiar with the ascent profile... It was part of the decision to override what was a false indicator. Challenger would have been in the water.

Reporters shout to be picked for a follow-up.

INT. NASA HQ - WETZEL'S OFFICE - DAY

On the phone, Wetzel listens and responds with a series of "uh-huh's". Davids and Herr wait for him to finish.

WETZEL

Thanks, buddy.

(Hangs up.)

Thiokol says the secondary nozzle Oring damage was bad, real bad.

INT. NASA OFFICES - MANN'S OFFICE - DAY

Cook knocks and enters.

MANN

Mr. Cook, we should have a factual knowledge base on the Centaur upper stage. Want to tackle that for us?

COOK

Sure.

MANN

It's yours. A good training exercise.

Mann goes back to his computer screen.

COOK

Mr. Mann?

MANN

Yes.

COOK

My reports on the solid rocket booster seals?

MANN

(Not looking back.) I got them.

Cook turns to leave.

MANN (cont'd)

Oh, Rick, don't leave your reports on my chair. The in-box is just fine.

The in-box holds a two-foot high stack of reports.

EXT. SAN DIEGO - FREEWAY - DAY

The sunny, palm tree lined landscape and an exit sign "Clairmont Mesa Blvd".

A late model white sedan passes by.

WHITE SEDAN

Cook rides shotgun with NASA assistant comptroller MAL PETERSON, 40's; a small head and large ears top off this short man in an expensive suit.

EXT. AEROSPACE FACTORY - PERIMETER - DAY

A razor wire fence protects a compound of industrial buildings, one bears lettering "General Dynamics".

INT. WHITE SEDAN - DAY

Peterson holds an open hand out to Cook.

PETERSON

Give me your ID.

COOK

Aren't we supposed to meet them at the office?

PETERSON

(Snapping his fingers.)

Come on. Come on.

Cook hands the ID over.

EXT. SECURITY GATE - WHITE SEDAN - DAY

Peterson rolls down his window to talk to the GUARD.

PETERSON

Mal Peterson and Richard Cook from NASA Headquarters.

(Hands over the IDs.)

We're meeting Phil Cushner here.

The Guard checks his clipboard.

GUARD

Don't have you down.

PETERSON

That's right! We were going to meet at the office. Do me a favor, give Phil a call and, since we're here, ask him to meet us at the Centaur assembly building.

The Guard nods and gets on the phone.

GUARD

Okay, go ahead.

Peterson drives on and smiles at Cook.

INT. CENTAUR ASSEMBLY BUILDING - DAY

The Centaur G-Prime sits horizontally in the stark light of the high-ceilinged building. Tool carts and equipment are scattered around it. Peterson and Cook are dwarfed as they enter the room through a single crash bar door.

PETERSON

Have ya' heard what they call it, Rick?

COOK

The bomb...

PETERSON

The bomb-in-the-bay. That's right. Forty-five hundred pounds of freezing cold oxygen and hydrogen just itching to send a bunch of spacemen to kingdom come.

Peterson looks around. Cook wonders what Peterson is looking for and does the same.

PETERSON (cont'd)

(At the top of his lungs.)

Hello?

(His echo reverberates.)

Hello? Alley, alley och-tin-free! Where are you?

(Looks to Cook.)

This is what I mean, Rick. How many days do you think it's been sitting here, not a workman in sight? Last time it was two weeks. Why you ask? They couldn't find a screw-your-butt-shut solenoid or some shit. It fell behind a workbench.

COOK

Isn't this suppose to fly in May?

PETERSON

The Galileo and then the Ulysses.

COOK

Right, major flights.

Peterson throws his arm around Cook's shoulder to huddle.

PETERSON

Rick, Rick, Rick. Listen very carefully to me.
(MORE)

PETERSON(cont'd)

NASA today is not about science. Do you think anyone of real power gives a shit about seeing some stars fart to death on the other side of the galaxy? This big, white mother behind us is for one thing. With that sucker, the Pentagon can position a nuke over Kadhafi's head and have it wink at him all night long. It's for Star Wars!

Two General Dynamics MANAGERS, one of them CUSHNER, crash through the door and hustle over to Peterson and Cook.

CUSHNER

Hey, Mal, you really took us by surprise coming right over here.

PETERSON

Oh, yeah? Rick Cook... (Handshakes.)

...and I, we're just wondering who's working on the Black Maria this morning? The Dugan donut man? The Schmaltz milkman? Or the Ding Dong diaper service?

The Managers chuckle, but a sudden scowl from Peterson puts them on notice.

PETERSON (cont'd)

So tell me, Phil, what the hell is going on here?

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti rains down on a fearsome chop.

SUPER: "T + 15 mins 07 secs" (counting up)

GREENE (O.S.)

Flight, Logistics Support Office?

LSO (0.S.)

(Filtered.)

This is LSO, Flight.

GREENE (O.S.)

Are you getting any inputs?

LSO (0.S.)

(Filtered.)

Helicopters, ships and a C one-fifty on the way. Looks like about fifty minutes, five-zero minutes, before helicopters are cleared in.

GREENE (O.S.)

Fifty minutes? From what time?

LSO (O.S.)

Time of explosion due to falling debris.

INT. AUDITORIUM - STAGE - PODIUM - DAY

ROGER BOISJOLY, 48, a large balding man whose oval face is sad, serious and concerned all at the same time.

SUPER: "PRESIDENTIAL COMMISSION - CHALLENGER ACCIDENT"

LIVE AND ON VIDEO MONITORS:

SUPER: "ROGER BOISJOLY, SENIOR SCIENTIST, MORTON-THIOKOL"

BOISJOLY

I have been distressed by the things that have been appearing in the paper. There was never one positive, pro-launch statement ever made by anybody at Thiokol.

ALAN MC DONALD, 48, a fit middle-aged gentleman. Graying hair and dark circles under his eyes.

SUPER: "AL MC DONALD - SOLID ROCKET BOOSTER DIR / MORTON-THIOKOL"

MC DONALD

I was told these are not your concerns. And, I said, I am concerned. If I were the launch director, I wouldn't do it. That is what I told them.

JOE KILMINSTER, 50's; a nerdy four-eyed version of Rod Serling with the high voice of a high school genius.

SUPER: "JOE KILMINSTER, SHUTTLE PROJECT VP / MORTON-THIOKOL"

KILMINSTER

I felt the pressure was to go back and look at the data to see if there was something we were not representing on the phone. So, that is what we did.

ROBERT LUND, 60's; a plumper version of Donald Rumsfeld, same eyeglasses and just as smiling, evasive and confident.

SUPER: "ROBERT LUND, ENGINEERING VP / MORTON-THIOKOL"

LUND

We have dealt with Marshall for a long time. We have always been in the position of defending our position to fly. That night we had to prove to them we weren't ready.

JERRY MASON, 60's; well-manicured looks and darting eyes.

SUPER: "JERRY MASON, SR. VP / MORTON-THIOKOL"

MASON

It was difficult to say that fiftythree degrees was exactly the temperature that you ought to fly at.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

INT. MORTON-THIOKOL - TEST FACILITY - DAY

Two gigantic graphite fiber-epoxy solid rocket booster segments, joined in the middle, sit horizontally within a mechanized steel frame. At one end, a pressure hatch. At the other, a steel wall of fittings sending tubes, wires and pipes off in every direction.

SUPER: "OCTOBER, 1985"

SUPER: "MORTON-THIOKOL TEST FACILITY"

An alert SQUAWKS on and off. Yellow warning lights flash.

CONTROL ROOM

Two TECHNICIANS man controls; protective windows separate them from the experiment.

Boisjoly looks on as the test begins.

TECHNICIAN

One hundred and forty percent, here we come.

Mc Donald enters the room smiling.

MC DONALD

The filament wound case. Booster segments as light as air.

Boisjoly lets a smile crack. They shake hands.

BOISJOLY

And as stiff as a freshman at the senior prom. Need more payload for military flights? Just make the rockets lighter.

MC DONALD

It sounded easy at the time.

Pressure PUMPS DRONE. The COMPUTER SCREEN reads out numbers relating to the pressure and stress forces.

TECHNICIAN

One hundred and ten and holding.

MC DONALD

How have you been, Mr. Boisjoly?

BOISJOLY

Just ducky, Mr. Mc Donald. It doesn't even get to one hundred-thirty. What do you say?

MC DONALD

How much?

BOISJOLY

A hundred bucks.

TEST AREA

Hydraulically controlled tools apply force and stress on various parts of the rocket segments.

TECHNICIAN (O.S.)

Stress routine complete and holding.

CONTROL ROOM

MC DONALD

You're on.

(They shake on it.)

Solid rocket booster powwow in DC, August nineteenth.

BOISJOLY

Where are we staying?

MC DONALD

You're not going, Roger.

TECHNICIAN

One hundred and twenty percent and holding.

TEST AREA

Hydraulics again squeeze and bend the rocket segments.

TECHNICIAN (O.S.) (cont'd)

Stress routine complete and holding. Increasing pressure five percent.

CONTROL ROOM

BOISJOLY

Who made that call?

MC DONALD

Lund, but they all agreed. Your attitude is not...

BOISJOLY

...a positive contributor to the discussion.

MC DONALD

That's the phrase.

COMPUTER SCREEN

Pressure read-out counts up: "121, 122, 123, 124, 125"

TECHNICIAN (O.C.)

One twenty-five. Stress routine in...

TEST AREA

A magnificent geyser bursts from the rocket segments.

TECHNICIAN (O.C.) (cont'd)

Test article failure at the one hundred twenty-five.

CONTROL ROOM

Mc Donald gets out his wallet. Boisjoly pulls out his pocket computer.

BOISJOLY

Fifteen percent off the safety specification, but way off in terms of material strength.

MC DONALD

How can we stop something this rigid from cracking?

BOISJOLY

Alan, remember something we were taught as engineers. No one, not even the government of the United States, can break the laws of physics.

Mc Donald hands over a fist full of twenties. Boisjoly pushes Mc Donald's hand away.

BOISJOLY (cont'd)

Just get me to that meeting in Washington.

INT. MSFC - MULLOY'S OFFICE - DAY

Mulloy picks up his ringing phone.

MULLOY

Mulloy.

INTERCUT:

INT. MORTON-THIOKOL - KILMINSTER'S OFFICE - DAY

Kilminster on the phone.

KILMINSTER

Larry, Joe Kilminster.

MULLOY

Joe, give me some good news.

KILMINSTER

Sorry, Larry. The test article failed at one hundred twenty-five.

MULLOY

(Under his breath.)

Damn it.

KILMINSTER

And, Larry, we completed the tests on the new reinforced material.

MULLOY

And?

KILMINSTER

Marginal. Came in at one hundred, thirty-nine.

MULLOY

Well, that just might work, Joe. When can I get the full report?

END INTERCUT

INT. FORT MEYER OFFICER'S CLUB - BAR/LOUNGE - NIGHT

By the looks of the food and drink on the table, Beggs and Bowman, both in civilian dress, have been at it quite a while.

BOWMAN

You make this deal with the Air Force, fifteen flights, you might as well let them take over NASA.

BEGGS

BEGGS (cont'd)

I haven't had a Deputy since Hans Mark left two years ago. I told Don Regan, okay, any one of them, except Graham.

BOWMAN

I agree.

BEGGS

They're shoving Graham down my throat.

BOWMAN

Nuke effects expert? This is all about Star Wars.

Beggs nods.

BEGGS

Kept count of the launches?

BOWMAN

Twenty-four by the end of the year.

BEGGS

Exactly what you predicted. NASA needs friends like you. You worked on Star Wars, right?

BOWMAN

No, I worked on a tactical defense project. SDI is absurd.

BEGGS

Maybe it's time to start telling people the difference?

BOWMAN

I'm going to.

EXT. EDWARDS AIR FORCE BASE - LANDING STRIP - DAY (ARCHIVE FOOTAGE)

The Crew makes an emergency exit from the orbiter Columbia as smoke billows out the hatch.

NEWSCASTER (V.O.)

NASA reports the fire in an auxiliary power unit posed no serious threat to the orbiter or crew.

INT. NASA HQ - MOORE'S OFFICE - NIGHT

Moore listens to the conversation on his speakerphone.

POWER SYSTEMS ENGINEER (O.C.)

(On phone.)

Well, it wasn't just a fire. The number three power unit exploded.

INTERCUT:

INT. JSFC - OFFICE - DOOR - NIGHT

The nameplate on the wall reads: "John Young, Chief - Astronaut Office"

OFFICE

The former astronaut, JOHN YOUNG, 55, trim, sharp as a knife, listens on speakerphone, as he gazes at...

WALL PHOTOS

The Apollo I crew publicity photo. Next to it a framed newspaper clipping with a large B&W photo of the charred remains of the Apollo I capsule.

YOUNG

We have now had over thirty anomalous behavior instances, as you guys call them, with these APU's.

MOORE

How many power units do we have left?

POWER SYSTEMS ENGINEER

Seven.

MOORE

Okay, we need three for each of our four orbiters. How long to get them manufactured?

POWER SYSTEMS ENGINEER Ninety days. But we can swap them from one orbiter to another. It would be easy if all the flights landed at Kennedy.

YOUNG

But all the flights don't land at Kennedy, because of the braking system restrictions.

MOORE

Understood, John. Please get me a report on how swapping APU's can work until we get new ones.

YOUNG

Ah, Jesse?

MOORE

Yes, John.

YOUNG

How 'bout we work on getting APU's that don't explode?

MOORE

That too, Mr. Young. Thank you, gentleman.

END INTERCUT

EXT. COOK'S HOME - DRIVEWAY AT ROAD - DAY

Cook digs around the broken mailbox post with an orange, fiberglass handled shovel. The tough digging has him hot and frustrated.

Cook's wife, PHYLLIS, 36, a tall, natural beauty with her hair in a country ponytail, pushes a stroller containing their baby, FRED, 6 months, down the driveway to the work site. ADELE, 5, their daughter, runs to her father with a cold soda can.

ADELE

Daddy, Daddy, look what I have for you.

Cook stops his work and takes his adoring daughter into his arms.

COOK

Oh, boy, that is just what I need right now.

PHYLLIS

How's it going?

COOK

(Mouthing to Phyllis.)
This sucks!

ADELE

What did you say, Daddy?

COOK

(Putting her down.)

I said I'll have <u>this done</u>. With all the things that need doing around here, I had to break the mailbox.

PHYLLIS

But things are getting better now. I'm very proud of you, Mr. Cook, NASA rocket scientist.

She gives him a kiss. Fred cries. Cook picks up the shovel, jams it into the hole, pulls back on it and the handle snaps. He shows Phyllis the blade hanging by threads of fiberglass. She snickers. Adele runs up the driveway toward the house.

ADELE

I'll get you another shovel, Daddy!

COOK

Adele, honey, we don't have another shovel!

INT. COOK'S OFFICE - DAY

Cook typing at his computer.

ON COMPUTER SCREEN: TYPING

"The Filament Wound Case has to fly because of the commitment to the Air Force. If costs exceed \$41.1 million, there are no additional solid rocket booster funds."

INT. MANN'S OFFICE - DAY

Cook places his report on top of the in-box pile.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti rains down on a fearsome chop.

SUPER: "T + 43 mins 11 secs" (counting up)

GREENE (O.S.)

LSO, Flight, any updates?

LSO (0.S.)

(Filtered.)

No sir. Debris still falling.

INT. AUDITORIUM - STAGE - PODIUM - DAY

MICHAEL WEEKS, 50's; jovial, short, pudgy and dressed in a too large brown suit.

SUPER: "PRESIDENTIAL COMMISSION - CHALLENGER ACCIDENT"

LIVE AND ON VIDEO MONITORS:

WEEKS

I waived it because I thought the system would work. The secondary O-ring is still there and does provide, maybe not dual redundancy, but one point X redundancy.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

INT. NASA HQ - SMALL CONFERENCE ROOM - DAY

The door is shut and the blinds on the window walls closed. At the table, Weeks is surrounded by Mulloy, Davids, Herr, Wetzel, McDonald and Kilminster.

SUPER: "AUGUST 19, 1985"

WEEKS

I'd like everyone to please sign the attendance sheet.

WETZEL

(To Kilminster.)

Where's Mr. Boisjoly, Joe?

KILMINSTER

He couldn't make it, so I'm here.

HERR

Is he okay?

KILMINSTER

He's fine. He's got his hands full with the filament wound case.

WEEKS

Okay, Paul Wetzel has circulated a proposal regarding an improvement to the SRB joints. Can we get this on the filament wound case test firing...

(Paging his notes.)
...scheduled for February?

MC DONALD

As long as the filament wound case passes the next hydro test.

WEEKS

Well, until proven otherwise, let's assume we'll clear that hurdle. In that case I see no reason to identify SRB seals as an issue on upcoming flight readiness reviews, but it will remain a criticality one item.

Mc Donald gives Mulloy a look and then addresses Weeks.

MC DONALD

I'd like to add Roger Boisjoly's temperature data to the agenda, if that's okay. He believes it should be a part of this discussion.

Kilminster shoots Mc Donald a look of displeasure.

MC DONALD (cont'd)

Especially considering the weather conditions we may face launching from Vandenberg.

EXT. COOK'S HOME - DRIVEWAY AT ROAD - DAY

Squatting on the ground, Cook strains to lift the concrete anchor from the hole by hand. Pulling it out, he falls back to sit on the ground, reaches for the garden hose, squeezes the trigger and is promptly soaked by spray from the fitting.

Cook kinks the hose, unscrews the nozzle, removes the rubber washer from the fitting, releases the hose and drinks while he examines the worn washer.

INT. NASA HQ - CORRIDOR - DAY

Cook makes his way down the hall and sticks his head in Wetzel's office... empty.

Proceeds on to Herr's office... empty.

Then Davids' office... empty.

Turning around, he spots Wetzel coming out of an office.

COOK

Paul!

Wetzel turns around, sees Cook and waits for him.

WETZEL

Hey, Rick, how you been?

COOK

Fine. I've been trying to get a hold of you. What's going on with the SRB seals?

WETZEL

Oh, yeah, that. Well, actually we met on that last week. I've got to make a meeting. Can we walk?

COOK

Sure.

WETZEL

Yeah, it's being taken care of.

COOK

Great. What's the plan?

Wetzel stops at a conference room door.

WETZEL

We're going with the capture feature. I'll get you something on it.

COOK

That would be great.

Wetzel ducks into the conference room, closes the door and gives Cook the thumbs up through the window wall.

EXT. KSC - LANDING STRIP - DAY (ARCHIVE FOOTAGE)

The orbiter Discovery lands, the braking parachute deploys and then a front tire blows out.

NEWSCASTER (V.O.) NASA reported that a minor brake problem caused the tire blow-out. The orbiter and crew were never

INT. JSFC - YOUNG'S OFFICE - NIGHT

Young stares into the speakerphone, his voice charged with conviction.

YOUNG

endangered by the event.

When the spec was changed for the military to thirty tons of payload, the braking system could handle fifteen tons.

INTERCUT:

INT. NASA HQ - MOORE'S OFFICE - NIGHT

On phone, Moore listens, not so patiently.

YOUNG

But instead of fixing the brakes, we made the landing strips longer. We have had brake damage on fifteen landings. I may be off base here, but I don't believe the astronauts should be able to break the brakes.

END INTERCUT

EXT. POTOMAC WATERFRONT - NIGHT - ESTABLISHING

On a street darkened by a RUMBLING elevated highway, hangs a storefront sign "Chadwick's." A STOUT MAN in a trench coat walks to the entrance.

INT. CHADWICK'S BAR & GRILL - BOOTH - NIGHT

The Stout Man, EDWIN FEULNER, shakes hands with two "old friends" seated in the booth: EDWIN MEESE and JOHN HERRINGTON. The three are a matched set of fat cat white men: Feulner, a face of cavernous nasal labial; Herrington, gray executive temple hair; and Meese, a nose as prominent as his drooping chin.

FEULNER

Mr. Meese, does NASA think the space shuttle lives for the exploration of the final frontier?

MEESE

Mr. Feulner, James Beggs has agreed to both military and civilian uses.

HERRINGTON

If nothing else, it's a brilliant cover. Iconic. The new West.

FEULNER

Mr. Herrington, SDI is the vital concern.

HERRINGTON

I've discussed this with the President. It's not his style to fire competent officials.

MEESE

As Attorney General, I have to agree.

FEULNER

Beggs isn't getting the job done.

Herrington nods knowingly.

MEESE

Can we start by getting Dr. Graham in?

FEULNER

That's a step in the right direction.

HERRINGTON

I can make that happen.

Nods all around and glasses are raised.

FEULNER

Here's to not drinking too much Potomac water.

OTHERS

Hear, hear.

INT. NASA HQ - LOBBY - DAY

Enter DR. WILLIAM R. GRAHAM, 48, a walking, talking American flag; blue suit, red and white tie, push broom mustache, confident, smiling yet all business. His briefcase is stiff at his side as he approaches a SECURITY GUARD.

SUPER: "NOVEMBER 25, 1985"

GRAHAM

Good morning. I'm Doctor William R. Graham.

SECURITY GUARD

Good morning Doctor Graham. I was told to expect you and direct you to the Office of the Deputy Administrator.

GRAHAM

That would be my office.

SECURITY GUARD

And so it would. You'll find the elevator...

GRAHAM

(With a wink.)

Stairs.

The guard smiles and points the way.

INT. NASA HQ - CODE M CONFERENCE ROOM - DAY

The room is buzzing with NASA managers. Moore, Mulloy and Young are in the primary spots around a horseshoe teleconference table.

SUPER: "8 DAYS LATER"

Cook, taking notes, stands in the packed room with Herr.

MULLOY

The recent test failure of the filament wound case is just a bump in the road. The changes we've now made are definitely going to be flight worthy.

YOUNG

You're basing that on the tests of the new material?

MULLOY

Yes, the improved performance over the old is huge.

WEEKS

John's point is important, Larry. It is not flight ready until it passes the full-scale hydro test.

MULLOY

Well, there's no doubt in my mind.

The room immediately comes to attention upon the entrance of Beggs who strides up to the platform.

BEGGS

I apologize for interrupting. As I'm sure you've heard, criminal charges have been leveled against me by Attorney General Edwin Meese. But, I want you to know this, once all the facts are out, I'll be completely exonerated. Thank you, everyone, for your continued support.

Wild applause from the room. Graham, standing in the rear claps unenthusiastically as Beggs leaves.

MULLOY

Jesse, may I continue by making a suggestion?

(Moore nods.)

In order not to slip the military flight schedule, let's go ahead and stack the ship for the first launch out of Vandenberg in March.

Moore looks around.

MOORE

I don't see any problem with having the stack ready to go.

INT. RESTAURANT - DINING ROOM - TABLE - NIGHT

Decorated for Christmas. Graham sits at a table reviewing a file. He spots PHIL CULBERTSON, 60's; and waves him over. They shake hands and sit.

GRAHAM

Mercury program?

CULBERTSON

Been with NASA since the beginning.

GRAHAM

I'm told you're the man I need.

CULBERTSON

What kind of man do you need, Doctor Graham?

GRAHAM

Somebody who knows how things work and can work them.

CULBERTSON

I can do that.

GRAHAM

There are going to be some management changes. How's General Manager sound?

CULBERTSON

There's no such position.

GRAHAM

You'll be the first.

INT. NASA HQ - CORRIDOR - DAY

Graham strides down the center of the executive corridor to the glass office suite of the Administrator.

INT. ADMINISTRATOR'S OFFICE - RECEPTION - DAY

Graham swings open the door with gusto and a grin, to the surprise of the secretary BETTY, 50's.

GRAHAM

Good Morning, Betty. I'll be in my office.

BETTY

Ah, Dr. Graham...

Graham marches into the office.

BETTY (cont'd)

Dr. Graham!

INT. NASA HQ - BEGGS' CORNER OFFICE - CONTINUOUS

Seeing Graham enter, Beggs gets up from behind his desk.

BEGGS

Dr. Graham! Betty didn't tell me you were here.

Graham cannot hide his disappointment.

BEGGS (cont'd)

You look like you've seen a ghost.

GRAHAM

I'm a bit surprised.

BEGGS

I guess you didn't hear. The White House has agreed to my taking a leave of absence. I'll be right here working on my defense.

Beggs walks Graham toward the door.

BEGGS (cont'd)

If I can be of help, just give Betty a ring.

INT. COMMERCIAL AIRLINER - COACH CABIN - DAY

Cook shares the seat row with Peterson.

PETERSON

Rick, do you know what the CISS is?

COOK

The cradle for the Centaur.

PETERSON

The cradle, isn't that a soft and cuddly term? You're right, very good. They delivered the damn thing to Kennedy. We open the crate.

(MORE)

PETERSON(cont'd)

It's missing just one-thousand four-hundred parts. Fittings are loose, brackets are dangling like Christmas tinsel. Cigarette butts and other miscellaneous garbage. But the real killer, pun intended here, quality control docs, ah, who needs 'em. Half are missing. Get the picture?

COOK

You're giving me a lot to think about.

PETERSON

Ha! You think this is an earful? Wait till you hear the flyboys from Houston tomorrow. Those poor suckers are just waking up to the fact that they're going to be driving the bombin-the-bay inside the orbiter come May. So, Rick. Give me some dirt. You gotta' know something by now.

COOK

There are real problems with the field joint seals on the SRB's.

Peterson is astounded.

PETERSON

What? Oh, give me a break, the Orings!? That's been on every flight readiness review, critical items list on each and every square of toilet paper used at every NASA facility. That's your dirt!? Let me tell you something, Rick. The solid rocket booster? That's probably the best piece of equipment we've got.

INT. NASA OFFICES - GRAHAM'S OFFICE - DAY

Moore, note pad in hand, sits across from Graham at his desk.

GRAHAM

We're increasing the Air Force shuttle payload allocation to fifteen flights. You can go ahead and signoff on that.

MOORE

Yes, sir.

GRAHAM

Also, do not book any new commercial launch business.

MOORE

I understand.

GRAHAM

One last thing. Challenger flight fifty-one L. Let's delay the planned launch by one day.

MOORE

Okay. May I ask why?

GRAHAM

Let's just say, it might help NASA's standing with some VIPs.

EXT. KSC - ASSEMBLY BUILDING - DAY - ESTABLISHING

A display of rockets in the foreground. In the b.g. the shuttle Challenger is on its way to the pad.

TITLE: "JANUARY 17, 1986"

INT. KSC - MEETING ROOM - DAY

A large room, packed with every branch of NASA's management.

LARRY ROSS, 42, a kind faced gentleman, finishes his presentation speaking in a modest tone and a Middle American inflection. Behind him:

PROJECTION SCREEN:

An ANIMATION of the joined Centaur and Galileo spacecraft, both vehicles labeled with arrows, being released from the open shuttle orbiter bay.

ROSS

Cryogenics, ducts, values and all other systems and functions worked flawlessly. So, I'm very pleased to report that Centaur and Galileo are good to go.

In the ANIMATION orbiter floats away and the Centaur engine fires.

Applause as the lights come up. Jesse Moore claps and shakes Ross' hand as he takes over the meeting.

MOORE

Thank you, Larry. John, I know you're anxious to get up here.

Young, comes front and center.

YOUNG

Jesse, I must say I'm not sure how Centaur got this far.

Peterson and Cook sit next to each other.

PETERSON

(Aside to Cook.)

Here we go.

YOUNG

Critical consideration, we have one valve, one, to dump cryogenic fuel in orbit for an emergency abort, dangerous enough. If that valve fails, the Crew will be sent on an EVA in the open bay to toss this thing out into space. Is this an acceptable risk?

(Acknowledges Ross.)

Larry.

ROSS

John, unfortunately, it was and is the best of two bad choices. Otherwise, we'll miss the Galileo launch window.

YOUNG

Mr. Moore, you're soon to be my new boss.

MOORE

And right now, I'm really looking forward to working with you, John.

Audience guffaws.

YOUNG

Didn't you tell me outside you hated yes men?

Moore forces a laugh.

YOUNG (cont'd)

I only want to add one thing. If Centaur were our bird, a single point failure would be fixed.

Peterson whispers to Cook.

PETERSON

When Centaur is launched and it's a success, all will be forgiven.

COOK

You think so?

PETERSON

Think what, launched, a success or forgiveness?

COOK

All, in that order.

PETERSON

Yeah.

INT. KSC - PRESS ROOM - DAY

HUGH HARRIS, 54, NASA Public Affairs Official, a large man with thinning gray hair, takes the podium. NASA Public Relations Specialists hand out press kits to the gathered Reporters and Television Crews.

TITLE: "JANUARY 22, 1986"

HARRIS

Can I get everyone's attention! I have an important update.

EXT. EDWARDS AIR FORCE BASE - HANGER - DAY

Through the open doors of the hanger, the orbiter Columbia inside, the California dessert and hills in the b.g.

INT. ORBITER COLUMBIA - DAY

Two teams of Technicians work on the guts of the ship to disconnect parts: one is an electronics component, the other an auxiliary power unit.

INT. KSC - PRESS ROOM - DAY

As Harris takes the podium, Press Officers hand out the latest news release to the gathered reporters.

HARRIS

NASA is postponing tomorrow's launch due to dust storms at the emergency landing site in Dakar, Senegal.

Braden and Fisher are already leaving the when Braden stops short.

BRADEN

Wait a minute, did you read this?

FISHER

Yes. Did I miss something?

BRADEN

Maybe.

Fisher grabs the release from Braden to take a second look.

BRADEN (cont'd)

Jay Greene has been promoted to NASA management!

Fisher smiles, crushes the release and tosses it in the air.

FISHER

Stop the presses. How stupid do they think we are?

BRADEN

Like they could have launched tomorrow with the shuttle crew still in Houston. What do you say we get a drink?

EXT. EDWARDS AIR FORCE BASE - HANGER - SUNSET

A team of technicians move crates to a waiting Air Force cargo plane.

INT. KSC - PRESS ROOM - DAY

To the gathered press corps:

HARRIS

The launch of Challenger mission STS fifty-one L is now scheduled for Sunday...

The disappointed press corps reacts: "Ahhhh!"

HARRIS (cont'd) ...January twenty-sixth.

REPORTERS (ADLIB)
A three-day delay! Is the Teacher in Space press conference on for tomorrow? When did you know this?

EXT. KSC - LANDING STRIP - NIGHT

The Air Force cargo plane lands.

EXT. KSC - LAUNCH PAD 39B - DAY

The crates from Edwards are transferred from a truck to a waiting Technical Crew. In the b.g. the Challenger orbiter fixed in the vertical launch stack.

INT. CHALLENGER ORBITER - DAY

Technicians, all in harnesses, work slowly on the guts of the ship. They are upright and everything around them is sideways.

INT. KSC - PRESS ROOM - NIGHT

The room is shambles. The Press Corps looks exhausted. Harris strides to the front of the room.

SUPER: "JANUARY 25, 1986"

NASA Public Relations Specialists hand out press releases.

HARRIS

Here's an update on the launch of fifty-one L. A decision has been made to postpone tomorrow's launch due to weather conditions.

FISHER

What conditions are those?

HARRIS

High probability of rain. It's all in the press release.

BRADEN

Usually the crew boards for a possible break in the weather. Will you be doing that tomorrow?

HARRIS

It's a firm no go as of now.

The Press Corps grumbles.

EXT. KSC - LAUNCH CONTROL/ASSEMBLY BUILDING - DAY

GEORGE ABBY, 50's; Administrative Head of the Astronaut Office, Young's boss, a stocky, tough man with a five o' clock shadow walks with Young. Both wearing sunglasses and short-sleeved shirts, they sip coffees as they stroll the open expanse. Their faces grimace as they stare at the shuttle on the launch pad in the distance and find clear blue skies everywhere they look.

YOUNG

George, who was the goddamned idiot that decided not to launch today?

ABBY

Don't look at me, John. It was Dr. Graham.

Young shakes his head.

YOUNG

What the hell does he know about weather? A couple days, a cold front could blow in here.

ABBY

He's no weatherman. But he seems to have the political climate nailed.

EXT. KSC - PRESS GALLERY - DAY

All eyes fixed on the shuttle Challenger.

TITLE: "JANUARY 27, 1986"

FLIGHT COMMENTATOR (O.S.) We're going to end the hold here at T minus nine minutes and scrub today's launch due to a technical problem on the pad.

EXT. KSC - LAUNCH PAD 39B - CHALLENGER ORBITER - DAY

A TECHNICIAN takes a hacksaw to a stuck bolt on the orbiter's hatch.

EXT. THE WHITE HOUSE - WEST WING LOBBY ENTRANCE - DAY

DONALD REGAN, 68, wearing a fine overcoat and toting an expensive briefcase exits from the rear door of a black sedan.

INT. WHITE HOUSE - WEST WING - OUTER OFFICES - DAY

Regan arrives at his SECRETARY'S desk and is handed his messages.

REGAN'S SECRETARY Good morning, Mr. Regan.

REGAN

(Taking his messages.) Good morning. Thank you.

REGAN'S OFFICE

At his desk, Regan flips through the phone messages, picks one out for immediate attention and opens a small desk drawer.

INSERT: DESK DRAWER - CALENDAR

The drawer contains only a small calendar open to January 1986.

Regan removes the calendar and places it on his desk. Each date is highlighted in either green, yellow or pink. Regan's finger finds January 28, 1986 marked in pink.

BACK TO SCENE

Regan closes the calendar, places it in the drawer and dials his phone.

REGAN (cont'd)

(On phone.)

Mr. Helin? This Donald Regan. I would just like to confirm that tomorrow, January twenty-eighth is not a good day.

(Listen.)

I understand. In that case, the President would like to speak to you personally. Can you hold?

Regan puts the call on hold and signals his Secretary who picks up her phone.

EXT. - LAUNCH PAD 39B - NIGHT

A van pulls up to the launch pad. A Team of Technicians, dress for frigid weather, climb out. They carry toolboxes.

SERIES OF SHOTS:

- A) A Technician takes a wrench to a valve on an emergency eyewash sink until the spout drips water.
- B) A Technician sets the faucet on an emergency shower to a slow stream.
- C) A technician removes a cap from a drainpipe stand and opens a valve to allow a trickle of water.
- D) A tank truck marked "Ethylene Glycol" pulls up.
- E) The truck Driver hooks up a bulk hose.
- F) Workers move along a catwalk and open standpipe valves that spew a green liquid into open holding tanks of water.
- G) The wind blows the stream of water into a spray from an eyewash sink, and...
- H) From an emergency shower, and ...
- I) From a stand pipe outlet.

EXT. KSC - LAUNCH PAD 39B - DAY

The sun comes up over the ocean behind the Challenger stack.

SUPER: "TUESDAY, JANUARY 28, 1986"

INT. NASA HQ - HERR'S OFFICE - DAY

Wetzel pops his head in Herr's office.

WETZEL

They're going in ten minutes.

HERR

What?

Wetzel disappears. Herr bolts out after him.

CORRIDOR

They walk as fast as they can.

HERR (cont'd)

How cold is it?

WETZEL

Cold.

HERR

Oh, God.

Weeks runs by Herr and Wetzel.

WEEKS

I hope we don't lose them!

INT. MORTON-THIOKOL - CONFERENCE ROOM - DAY

A packed room watching PAD 39-B on a video monitor.

Leaning against the back wall is BOB EBELING, 50's; his well-groomed looks and snappy suit and tie tell his story: more management than engineer.

Boisjoly pokes his head in the conference room and then disappears. Ebeling leans out in the...

HALLWAY

EBELING

Roger, they're going in less than five minutes. Watch the launch.

Boisjoly shakes him off.

BOISJOLY

No, thanks, Mr. Ebeling.

EBELING

You can't miss a launch! Come on!

CONFERENCE ROOM

Ebeling takes an empty seat up front and Boisjoly sits on the floor in front of him.

INSERT: ON VIDEO SCREEN

SUPER: "T - 00 mins 05 secs" (counting down)

Ignition of the main engines, the roar and smoke of the boosters send the stack off.

LAUNCH COMMENTATOR (V.O.)

...and we have lift-off, lift-off of the twenty-fifth space shuttle mission. And it has cleared the tower.

BACK TO SCENE

Ebeling leans down to Boisjoly.

EBELING

We just dodged a bullet, my friend. Now, I'm going to say a prayer.

EXT. SPACE SHUTTLE - DAY (ARCHIVE FOOTAGE)

In flight, rolling into orbiter down position.

ASTRONAUT SMITH (O.C.)

(Filtered.)

Looks like we've got a lot of wind here today.

INSERT: COMPUTER TELEMETRY SCREEN

BUZZER ALARM & Blinking Text: "RIGHT-HAND SRB CHAMBER PRESSURE DROP"

INT. NASA HQ - NEWS AUDITORIUM - DAY

Cook watches Challenger's ascent.

SUPER: "T + 00 mins 61 secs" (counting up)

VIDEO MONITOR: NASA SELECT

ASTRONAUT SCOBEE (O.C.)

(Filtered.)

Yeah.

ASTRONAUT COVEY (O.C.)

(Filtered.)

Challenger, go at throttle up.

SERIES OF SHOTS: SHUTTLE IN FLIGHT

- A) A well-defined plume of flame arcs away from the right solid rocket booster.
- B) Main engine nozzles moving in large arcs.
- C) Sharp movements of the orbiter's elevons.
- D) A strut connecting the SRB to the external tank breaks.
- E) Both SRBs tear loose and head off on different trajectories.
- F) An orange fireball bursts.

INT. MORTON-THIOKOL - CONFERENCE ROOM - DAY

Boisjoly's eyes grow wide.

INSERT: COMPUTER TELEMETRY SCREEN

BEEPING ALARM & Blinking Text: "MAJOR HIGH RATE ACTUATOR COMMAND"

INT. NASA HQ - NEWS AUDITORIUM - DAY

Cook cringes.

ASTRONAUT SMITH (O.C.)

(Filtered.)

Uh oh.

INT. CHALLENGER ORBITER - MAIN DECK COCKPIT - DAY

The Challenger Crew strapped in their seats. A flash of orange light and a shock wave jolts the cabin.

EXT. CHALLENGER LAUNCH VEHICLE - DAY (ARCHIVE FOOTAGE)

Exploding in flight.

INT. MORTON-THIOKOL - CONFERENCE ROOM - DAY

At the same time: SCREAMS, CRIES and MOANS from those in the room watching the launch.

Boisjoly buries his head between his knees and convulses.

INT. NASA OFFICES - COOK'S OFFICE - DAY

Red faced, trying to hold back tears, Cook staggers into his office and shuts the door. Slouching into his chair he pinches his eyes and nose, then looks to the telephone, picks it up and dials.

COOK

(On phone.)
Phyllis, it's me.

INTERCUT:

INT. COOK'S HOME - KITCHEN - DAY

Phyllis, holding Fred, cradles a cordless phone between her ear and shoulder. At the kitchen table Adele plays with her dolls.

PHYLLIS

Rick, what's wrong?

COOK

The shuttle. It blew up.

Phyllis dashes into the...

LIVING ROOM

...and turns on the television. News coverage of the Challenger accident appears on the screen.

PHYLLIS

Exploded?

COOK

About a minute or so into the flight.

PHYLLIS

But, it's only January. You said this might happen in May.

COOK

It wasn't the Centaur bomb-in-thebay. It was something else.

INSERT: COMPUTER TELEMETRY SCREEN

Data numbers stop and the time count continues down the right side of the screen: "T + 01 mins 14 secs" (counting up)

EXT. WASHINGTON DC - SIXTH STREET - CURBSIDE - NIGHT

Cook holds the collar of his overcoat against the wind as his passenger van approaches.

INT./EXT. PASSENGER VAN - NIGHT

Cook sticks his head inside.

COOK

Would you mind doing the drive?

Liz closes her door and refastens her seat belt. Pop MUSIC plays on the radio.

LIZ

Get in here, before these assholes wake up.

PASSENGER (O.C.)

I heard that.

LIZ

Go back to sleep.

INT. PASSENGER VAN - FRONT SEATS - NIGHT

Cook changes the radio station.

COOK

We need to listen to the news tonight.

LIZ

Do they know what caused it?

Cook shakes his head no.

MOORE (O.S.)

(On radio.)

Data from all of the shuttle instrumentation...

LIZ

Who's that?

COOK

Jesse Moore, head of Code M.

LIZ

Code M. What's that?

MOORE (V.O.)

... photographs, launch pad systems...

COOK

He calls the shots.

INT. KSC - PRESS ROOM - DAY

Harris collects film and videotape from reluctant press photographers and camera operators.

HARRIS

We will get this back to you. Thank you for cooperating. Thank you.

EXT. KSC - LAUNCH PAD 39B - DAY

NASA Security Vehicles, emergency lights flashing, surround the pad. SECURITY PERSONNEL run from TRUCKS and PATROL CARS to cordon off the perimeter.

MOORE (V.O.)

...and even notes made by any member...

INT. JSFC - BUILDING 30 - MISSION CONTROL - DAY

Phones are RINGING incessantly. Greene looks over the control room. The flight controllers are all in shock.

GREENE

Okay, everyone. The contingency plan is in effect.

The phones stop ringing.

GREENE (cont'd)

The building will be locked down. Gather any and all data together and wait at your posts until called for debriefing.

INT. BUILDING 30 - FACILITY CORRIDOR - CONTINUOUS

SECURITY GUARDS scatter right and left off the corridor. A door SLAMS, then another and another.

Security Guards take up posts blocking the exits.

MOORE (V.O.)

...of a launch team or flight ops team are being impounded. I have taken an immediate action to form an internal NASA investigative board.

LIZ

So, you're gonna be investigating yourselves?

Cook looks at her pondering this.

LIZ (cont'd)

(Sarcastically, raising her left arm.)

Right arm, brother!

EXT. RURAL ROAD - PASSENGER VAN - NIGHT

The van passes and disappears in the distance.

EXT. NASA OFFICES - STREET - PASSENGER VAN - DAY

Cook gets out the driver's side and Liz moves over to take the wheel.

Liz leans to roll down the passenger window as Cook reaches the sidewalk.

LIZ

Rick!

Grinning, she tosses a bag of litter at him.

LIZ (cont'd)

Litter bug at three o'clock.

Cook catches the trash and cracks a smile.

LIZ (cont'd)

Made you smile.

EXT. NASA OFFICES - CURBSIDE - DAY

Cook buys the New York Times from a self-vending box.

The headline reads "The Shuttle Explodes".

INT. NASA OFFICES - ELEVATOR - DAY

Cook steps off the elevator, stops and takes a look around a bit puzzled. No dour faces, just the typical activity level. STEVE, a colleague, strolls past.

STEVE

Good morning, Rick.

COOK

Good morning, Steve.

Cook walks to his office suite and enters.

ALICE

Good morning, Mr. Cook.

COOK

Good morning.

ALICE

I suppose you'll be going across the street today?

COOK

Yes, I suppose.

INT. COOK'S OFFICE - DAY

Cook logs onto his computer and quickly brings up a file containing his memo on the solid rocket booster O-rings.

INSERT: COMPUTER SCREEN

"SUBJECT: Problem with SRB Seals"

BACK TO SCENE

Cook's dot matrix printer screams into action.

Mann enters Cook's office.

MANN

Rick. We'll need estimates on the cost to replace the SRBs that were lost yesterday. Both of them.

COOK

Yes, I know, the destruct system is cross-strapped.

MANN

Okay, then I'll expect that report.

Mann turns and leaves the office. The printer stops.

EXT. WASHINGTON DC - MARYLAND AVE & SIXTH ST - DAY

Cook looks both ways and hustles across the intersection making the first crossing with the light.

For the second crossing he looks both ways and catches a gap in the traffic and runs to the NASA HQ building, past the dumpster to enter the building via the basement doorway.

INT. NASA HQ - CORRIDOR - DAY

Cook finds Herr in his office and takes a seat.

COOK

Did a booster fail?

HERR

I don't know.

COOK

What can you tell me, Paul?

HERR

The investigation is going on at Kennedy, but I'm here.

Cook gets up and searches Herr's bookcase.

COOK

I need a couple big books. The only conversation this morning was, "What's this going to cost us?"

Cook takes two notebooks off a shelf. Motions to Herr, can I take these? Herr nods. Cook turns to leave.

HERR

Wait.

(Approaches Cook and closes the door.)

I got a call at home last night from the Cape. Two contractors opposed the launch.

Herr looks at his watch.

HERR (cont'd)

Want to go see what the brass has to say?

INT. NASA HQ - CODE M CONFERENCE ROOM - DAY

Cook and Herr sit watching the NASA press conference from Kennedy on a video monitor in the front of the room.

ON SCREEN: NASA SELECT

Braden is called on.

BRADEN

Compared to the NASA timeline, Challenger's actual climb appears slow. Were there any anomalies whatsoever prior to the explosion?

At the dais, Jesse Moore takes the question.

MOORE

Not that I have heard.

INT. NASA HQ - CORRIDOR - DAY

Cook makes his way to the elevator and is stopped by Irv Davids.

COOK

Irv, you're not at Kennedy.

DAVIDS

No, sir.

(Zips his mouth shut.)

Those are the orders.

Davids gives Cook a knowing look and hands him a memo. Cook takes a look and hands it back to Davids.

COOK

Thanks.

DAVIDS

Thought you might want to see that.

Cook nods and gets on the elevator.

EXT. WASHINGTON DC - MARYLAND AVE & SIXTH ST - DAY

Cook crosses over to the NASA office building and walks out of view. The light turns and traffic starts up.

Cook runs back into view and bursts into the intersection crossing diagonally, bull fighting cars and trucks that screech to a halt.

INT. NASA HQ - CORRIDOR - DAY

Cook exits the stairwell breathless and attempts to make a nonchalant approach to Davids.

A COLLEAGUE chatting with Davids notices Cook's return. Davids turns surprised to see Cook back.

COOK

(Pointing to the memo.) May I have a copy of that?

DAVIDS

Keep this one.

COOK

Thanks.

Cook turns and heads up the corridor.

INT. HERR'S OFFICE - DAY

Cook stands at the door watching as he talks to Herr.

COOK

Paul, give me whatever it is you have on the O-rings. All the reports.

Herr quickly pulls out an entire file and hands it to Cook.

COOK (cont'd)

November of eighty-four?

Herr gets up and closes the door.

HERR

Actually, we had it on the agenda earlier than that.

INT. NASA OFFICES - MANN'S OFFICE - DAY

Cook and two other program analysts, SUSAN, 55, and Steve sit facing Mann.

COOK

Code M believes an O-ring joint failure was the likely cause.

MANN

We knew we had a design problem. What are your next steps?

COOK

This has major budgetary implications. It's possible that STS could be grounded for up to two years.

MANN

(Rolls his eyes.)

Okay. Find out all you can.

COOK

Yes, sir. I plan to write up what I have by Monday.

MANN

Thank you all. Carry on.

Susan and Steve leave. Cook remains seated.

COOK

Mr. Mann, one more thing. The Treasury Department has offered me a position, so I'll be leaving NASA soon. You can expect a call.

MANN

Well, I'm not going to say I'm surprised.

Mann turns back to his computer as Cook gets up.

MANN (cont'd)

Mr. Cook, people's careers are at stake.

INT. NASA OFFICES - CORRIDOR - DAY

Cook is approached by Steve.

STEVE

Rick, don't take it personally. The main engine boys were surprised it wasn't their piece of hardware that went first.

INT. COOK'S OFFICE SUITE - OUTER OFFICE - DAY

Susan stands at Alice's desk and intercepts Cook.

SUSAN

I don't like the speculation that's going on in the media. But I truly resent speculation right here at NASA. I wouldn't be so fast to jump to conclusions.

She goes to her office.

COOK

Alice, I'm going...

ALICE

...across the street. Okay.

INT. NASA HQ - CORRIDOR - DAY

Cook walks the hall.

DAVIDS' OFFICE

Davids sees Cook pass by.

DAVIDS

Rick!

Rick stops and enters Davids' office.

COOK

How's it going, Irv?

Davids gets up and stands face to face with Cook.

DAVIDS

Have you shown that memo I gave you to anyone in the comptroller's office?

COOK

No.

DAVIDS

I shouldn't have given it to you. I need you to give it back to me.

Davids waits for Cook's answer, hand in pockets. Neither Davids' face nor body language show any resolve. Cook raises a questioning eyebrow.

DAVIDS (cont'd)

At least don't let Dr. Graham see it.

Davids turns and walks back behind his desk.

INT. COOK'S HOME - KITCHEN - NIGHT

At the table, the television is on in the b.g., Cook types on an IBM Selectric.

TYPING ON PAGE:

"The effects of weather factors on $\mbox{O-rings}$ may require further investigation."

ON TELEVISION - FACE THE NATION - (ARCHIVE FOOTAGE)

Leslie Stahl interviews Dr. William Graham.

GRAHAM

These solid rocket boosters are some of the sturdiest parts of the entire shuttle system.

TYPING ON PAGE:

"The Propulsion Division engineers have been excluded from the Challenger investigation."

ON TELEVISION:

GRAHAM (cont'd)

We never compromised on safety.

TYPING ON PAGE:

"The solid rocket boosters have been flying in an unsafe condition."

ON TELEVISION - MEET THE PRESS - (ARCHIVE FOOTAGE)

GRAHAM (cont'd)

A solid rocket booster failure is just not a credible failure mode.

BACK TO SCENE

Cook looks up at television, shakes his head and goes back to typing.

INT. NASA OFFICES - COOK'S OFFICE - DAY

Cook hands Alice a copy of his memo.

ALICE

Going across the street?

COOK

Yes. Would you see that Jim Brier gets this?

ALICE

Of course, Mr. Cook.

INT. NASA OFFICES - MANN'S OFFICE - DAY

Cook enters the empty office, is about to put the memo in the in-box but then tosses it on Mann's chair.

INT. NASA HQ - HERR'S OFFICE - DAY

Cook sits across from Herr.

COOK

A week from Friday is my last day at NASA.

HERR

Good for you, Rick. Have you seen the newspaper photos of the plume?

COOK

Sure.

HERR

It looks to me like it may be above the field joint.

COOK

It's the camera angle, Paul. It's distorting the length.

HERR

You're probably right.

Cook gets up to leave.

COOK

Been good working with you, Paul.

Herr gets up and goes to a filing cabinet.

HERR

Hold on.

Herr finds what he's looking for and hands it to Cook.

HERR (cont'd)

This is the Death Document. March of eighty-three. We asked Level One for a design change. It describes exactly what happened to Challenger. It's probably the little guys that are going to get fried.

COOK

You sit tight and keep your head.

INT. NASA OFFICES - COOK'S OFFICE - DAY

Brier storms in slamming the door shut behind him.

BRIER

You can't be serious, Rick!
(Throws the memo at Cook.)
This is explosive! What are you out to do? You can't support any of this. You're going to get us all fired.

COOK

Do you want to go through it, Jim?

BRIER

What?

COOK

Go through it, point by point?

Brier sits.

BRIER

Okay.

COOK

(Choked up.)

There's nothing in here I wouldn't swear to under oath, Jim. Not one thing.

INT. JSFC - PRESS ROOM - DAY

Greene and Harris face a standing room only press corps.

HARRIS

Today, we don't plan to deal with the broad policy issues. We ask that you save those questions for Dr. Graham or Jesse Moore.

GREENE

Pre launch was perfectly nominal. We had no malfunctions and there were no requirements waived, either in the systems or weather areas.

Reporter JAMES FISHER stands.

FISHER

James Fisher, Orlando Sentinel. When does the cold play a factor in launching the shuttle?

GREENE

I was talking about weather concerning the ascent. The rest of the weather call is made by management at the Kennedy Space Center.

INT. COOK'S HOME - LIVING ROOM - NIGHT

Cook watches the television leaning against the kitchen doorway. Phyllis sits feeding Fred on the sofa.

ON TELEVISION: THE WHITE HOUSE - DAY

Rogers gives a statement to a group of reporters.

ROGERS

We are not going to conduct this investigation in a manner which would be unfairly critical of NASA.

REPORTER

Would you elaborate, sir?

ROGERS

I certainly think NASA has done an excellent job. This will not be an adversarial process as far as NASA is concerned.

BACK TO SCENE

PHYLLIS

I don't understand. What does that mean?

COOK

It's going to be a whitewash.

Cook disappears into the kitchen.

INT. NURSERY - NIGHT

Phyllis puts Fred down into his crib. Cook enters and hands Phyllis a memo, then turns his attention to Fred. Phyllis reads the memo.

PHYLLIS

Are you telling me they knew the shuttle could explode?

Cook nods.

COOK

Did you notice who wrote that?

PHYLLIS

You!?!

(Cook nods.)

You have to do something.

COOK

It's not that simple.

PHYLLIS

Somebody's got to do something.

INT. NASA OFFICES - COOK'S OFFICE SUITE - DAY

Cook unlocks the outer office door, enters, and checks that Susan's office is empty.

COOK'S OFFICE

Cook holds the phone waiting to be connected.

COOK

Hello. I'm calling about the Presidential Commission.

SECRETARY (O.C.)

(On phone.)

Yes?

COOK

I need to know what the Commission will do if anyone at NASA brings them information about what really happened to Challenger.

SECRETARY (O.C.)

(On phone.)

Oh. Don't worry. Mr. Rogers is not going to be hard on anybody. He's a very nice man.

(Laughs.)

Besides, he'd much rather be playing golf.

Cook looks at the receiver dumbstruck and hangs up.

INT. PASSENGER VAN - FRONT - NIGHT

As Cook drives, he glances back at his sleeping passengers and sees Liz starting to doze off.

COOK

Liz? Liz?

LIZ

Yeah, what's up, Rick?

COOK

I know everything about the Challenger. It's in my briefcase.

LIZ

Yeah, that's good.

COOK

Do you know what they're doing?

LIZ

No, Rick, how would I know. You haven't told me.

COOK

They're going to make it seem like a malfunction, Liz, a glitch, a...

T.T 7

Yeah, yeah, I know what a glitch is, my life's one big glitch.

COOK

They're going to talk about it but never really say anything until nobody cares anymore.

LIZ

That's what they always do, Rick.

COOK

They shouldn't get away with this.

LIZ

Well, Rick, who's going to stop them? There's never anybody to stop them.

INT. AUDITORIUM - DAY

At a witness table, Graham, Moore, Aldrich and Lovingood look eager to testify before the Commission.

SUPER: "PRESIDENTIAL COMMISSION - CHALLENGER ACCIDENT"

LIVE AND ON VIDEO MONITORS

GRAHAM

The Commission can be certain that NASA will provide you with its complete and total cooperation.

ROGERS

Thank you, Dr. Graham.

MOORE

We will talk about our design... the contractors... flight certification... testing... launch process... flight software...

INT. NASA OFFICES - CONFERENCE ROOM -DAY

Office Workers wander in and out. Cook alone has settled in to watch the Presidential Commission hearings.

BACK TO SCENE: AUDITORIUM

ROGERS

Has the role of the Department of Defense changed at any point?

MOORE

No. In fact, it's gotten stronger. The Centaur upper stage was developed principally for Department of Defense missions.

ALDRICH

The temperature ranges were predicted in the mid-twenties, well within the design of all the flight elements.

MOORE

The ice team came back and reported that everything was okay.

ALDRICH

Yes. All considerations for launch were acceptable.

ROGERS

Do you remember any warning from Morton-Thiokol to the effect that there might be a problem with the temperature in the boosters?

ALDRICH

I do not recall such a warning at that time.

WALKER

Are you planning to go into any detail about how the SRB segments are joined?

LOVINGOOD

I had not planned to go into any detail on that.

INT. NASA OFFICES - CONFERENCE ROOM

Cook, still watching the hearings on television, feels eyes on the back of his head. He turns to see Mann standing by the door. Cook turns away then look back. Mann is gone.

BACK TO SCENE: AUDITORIUM

MOORE

And the main concern was, were these pipes going to freeze?

ROGERS

Was there anything unusual about this launch that we should know?

ALDRICH

No, sir, not to my knowledge. We had no concern for the performance or safety of the flight articles at that time, nor do I even at this time.

LOVINGOOD

We have seen some evidence of what we call blow by of those seals, some erosion. We have never seen any erosion of a secondary seal.

ALDRICH

I have a different response than Jesse Moore gave to your question about how our performance has been: We have seen fewer anomalies on flights in the last year or two.

LOVINGOOD

Is there anything else on the booster?

Rogers looks to the panel, there's no response.

ROGERS

I guess not.

LOVINGOOD

Going on to the external tank...

MOORE

And that is all the charts that I have prepared this morning.

ROGERS

Thank you very much, Mr. Moore, for a very good briefing.

INT. NEW YORK TIMES OFFICES - CONFERENCE ROOM - NIGHT

Flip chart drawings, documents and the remains of take-out food suggest Cook and Boffey have been at it for some time.

BOFFEY

Okay, I've got it.

COOK

Good. I'll be leaving NASA. I got a job at Treasury.

BOFFEY

Great. Does that change things?

COOK

Phil, I still don't want my name connected with this.

Cook gathers his belongings and puts on his coat.

BOFFEY

Rick, the Times wants this to be front page this Sunday.

COOK

Alright.

BOFFEY

If you want to back out we'll return everything right now and act as though you never came here.

COOK

I want this story out.

BOFFEY

So do we, but there's one more thing. We think it's very important to publish your July 23rd memo. It's your warning that explains it all and ties it all together.

COOK

All I did was report what the engineers told me.

BOFFEY

But you put it into words everyone could understand. If we quote from it, we'll need to say it was Richard Cook who wrote it.

Cook falls into a chair, drained and confused, tears well up in his eyes. He chokes up and can hardly swallow a breath. Boffey quickly gets Cook a cup of water.

BOFFEY (cont'd)

Rick, I'd like you to meet the bureau chief. He's talking to Arthur Sulzberger in New York right now, about your story. You got the job at Treasury. You'll be okay.

COOK

Okay. We'll do it that way.

But both their faces show they know it's a lie.

INT. NASA OFFICES - GRAHAM'S OFFICE - NIGHT

Graham paces, phone to his ear.

GRAHAM

Commissioner Rogers? Dr. Graham here. The New York Times has been calling.

EXT. DRIVEWAY AT ROAD - DAY

Cook weed-whacks the undergrowth around his new mailbox.

Finished, he walks up the driveway toward his house.

Looking at the house, his vision becomes blurred, his face anguished, he drops the weed whacker and falls to the ground holding his back.

EXT. DRIVEWAY - DAY

A car pulls up and stops in front of Cook who is crouched on all fours trying to crawl. Cook's father, RICHARD SR., 59, bald, athletic and nervous, jumps out of the car and runs to his son.

RICHARD SR

Phyllis! Phyllis!

Phyllis comes running out of the house toward them.

INT. COOK'S HOME - KITCHEN - DAY

Cook sits at the kitchen table, crutches leaning beside him and the Sunday New York Times in front of him. Richard Sr. places aspirin and a glass of water on the table and sits beside his son. They both stare at the front page.

Richard Sr., shaking a bit, his mouth a serious frown, nods and pats his son on the back.

INT. COOK'S KITCHEN - NIGHT

Alone, seated at the table, Cook pushes the newspaper to the side and dials the cordless phone.

INTERCUT:

INT. LIZ'S BEDROOM - BED - NIGHT

The phone on Liz's night table rings, waking her.

LIZ

Who is this?

COOK

Rick.

LIZ

Hey, how you doing? I saw your name in the newspaper. Are you okay?

COOK

I need you to drive tomorrow. I'm not going in.

LIZ

(Laughs.)

Rick, you're shitting me, right?

COOK

No.

LIZ

Baby boy, you got to go in, or they will know whom's ass to kick.

Rick thinks about it.

LIZ (cont'd)

Rick? Rick? Are you there?

END INTERCUT

INT. WILLIAM ROGER'S HOUSE - STUDY - DAY

Rogers on the phone.

ROGERS

Yes, Donald, I understand the situation. If they have to be shed, they will be. It's still very manageable.

He holds and releases the cradle button and dials.

ROGERS (cont'd)

Doctor Graham? We'll be having a closed-door session of the Commission tomorrow at ten. Get everyone there. (Listens.)

Everyone, Doctor Graham, everyone.

INT. NASA HQ - CORRIDOR

The door sign reads "Health Unit". Cook, on crutches, limps in.

INT. HEALTH SERVICES - EXAMINING ROOM - DAY

A female DOCTOR examines Cook's back.

DOCTOR

Your muscles are in knots. Mr. Cook, you're going to be in a lot of hot water. Do you know that?

Cook stares at her.

DOCTOR (cont'd)

Oh, yes.

INT. OLD EXEC OFFICE BUILDING - MEETING ROOM - DAY

A stately hall of bygone splendor. The attendees include Weeks, Davids, Mulloy, Moore, Herr, Wetzel, Culbertson and McDonald. They mill around nervously.

Graham is seated front and center before a stern Rogers, flanked by the other members of the commission: Kutyna, Ride, Hotz, Armstrong, Feynman and Walker.

SUPER: "PRESIDENTIAL COMMISSION - FEBRUARY 11, 1986 - CLOSED SESSION"

ROGERS

The article in the New York Times has created an unpleasant, unfortunate situation. The Commission must have all the appropriate documents. Do you agree with that, Dr. Graham?

The STS Managers like little shamed boys nod agreement.

GRAHAM

Mr. Chairman, you can be certain that you will have our full cooperation.

Graham hands over a file full of documents to Rogers.

ROGERS

Thank you. Dr. Graham.

His underlings' jaws drop as Graham leaves the room.

MOORE

Mr. Chairman, I would like to introduce Mike Weeks who can put the information that has come out about the SRB seals in context.

WEEKS

The Cook memorandum was prepared by a financial analyst, a financial person from the financial department. The young chap, Cook, came aboard about the first of July and was just picking up things in the hall.

ROGERS

Is he here today, Mr. Weeks?

WEEKS

No.

Rogers looks through his papers.

MOORE

(Aside to Weeks.)

Where's Cook?

Weeks whispers to Moore.

CUT TO:

INT. HEALTH SERVICES - TREATMENT ROOM - DAY

Cook soaks in the steaming water of an athletic whirlpool bath. The Doctor smiles at him as she fills out a chart.

BACK TO SCENE: MEETING ROOM

Moore mouths "Where?" Weeks nods. Moore gets angry.

ROGERS

So, Cook was just hired and in a department where he didn't have knowledge of what was going on?

WEEKS

You should discount this to a fairly great extent.

KUTYNA

Didn't you have charring of a secondary seal on flight fifty-one C?

MOORE

No.

WEEKS

It was fifty-one D. Dr. Ride?

RIDE

Did you see a problem with the primary seal on fifty-one C?

MOORE

Some erosion, but we will get to all that later.

HOTZ

Are there any errors of fact in the Cook memo?

WEEKS

Which one, Mr. Hotz?

 ${\tt HOTZ}$

The July twenty-third memo.

MOORE

We can get Cook here, if you like.

Rodgers bangs his fist on the table.

ROGERS

Is what Cook sets forth accurate?

WEEKS

I think catastrophic is overstated.

ROGERS

Isn't this information he got from engineers?

MOORE

I think the best thing we can do is get Mr. Cook here.

ROGERS

Yes, but I'd like some answers from you, now, Mr. Moore.

HOTZ

How about an opinion? Is the Cook memo accurate? Or, is it not?

WEEKS

I would like to pore over every word and get back to you.

Rogers sits back in his chair disgusted.

WEEKS (cont'd)

I'd like to go on to Irv Davids' memo.

Rogers signals to proceed with a swish of his hand.

WEEKS (cont'd)

This memo was written after we had secondary O-ring erosion on the April flight.

MOORE

Mr. Chairman, I'd like to point out that Mr. Davids is here.

ROGERS

Thank you, Mr. Moore. Mr. Davids, can you address this?

DAVIDS

I wanted to obtain all the data of what kind of failure we were getting on the seals and get it to top management who requested the information.

(The panel perks up.)
And I think Larry Mulloy will clarify the results.

Mulloy stands near a set of flip charts with a pointer.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

EXT. KSC - LAUNCH PAD 39-B - CHALLENGER LAUNCH VEHICLE - NIGHT - ESTABLISHING

INT. KSC - LAUNCH CONTROL - MC DONALD'S OFFICE - NIGHT

McDonald paces as he talks on the phone.

MC DONALD

Twenty-two degrees. And let's be clear, Bob, that's Fahrenheit. Twenty-two degrees F as in friggin' cold.

INT. KSC - LAUNCH CONTROL - GALLERY MEETING ROOM - NIGHT

Around a table of teleconference equipment are McDonald, Lovingood, Reinartz and Mulloy.

INT. MORTON-THIOKOL - CONFERENCE ROOM - DAY

Lund, Boisjoly, Mason and Ebeling are at the teleconference table, other Thiokol ENGINEERS fill the room.

LUND

Thiokol recommends tomorrow morning's launch be delayed.

LOVINGOOD

We've had some trouble getting Marshall on the hook-up, Mr. Lund. Can we get faxed hardcopy of what you're saying to everyone and reconvene later?

LUND

Sure. Alan will you handle the distribution?

MC DONALD

No problem.

McDonald clicks off the teleconference.

LOVINGOOD

Who needs to know tomorrow's launch might be delayed?

REINARTZ

I'll let Aldrich and Moore know. That should take care of it.

EXT. MERRITT ISLAND, FL - HOLIDAY INN - DAY - ESTABLISHING

The well-known Holiday Inn neon arrow sign of the period in the stark light of day.

MOTEL ROOM DOOR

Lucas opens the door to Reinartz and Mulloy.

INT. MOTEL ROOM - DAY

Lucas rubs his neck.

LUCAS

I just got off the phone with Phil Culbertson, who just spoke to Dr. Graham.

Lucas looks Mulloy and Reinartz in the eyes as he thinks about what he going to say next.

EXT. HOLIDAY INN - MOTEL ROOM DOOR - DAY

Mulloy and Reinartz exit the room and get in their rental car.

HOLIDAY INN SIGN

The sky is now twilight. The rental car passes the sign.

BACK TO SCENE: MEETING ROOM

Rogers focuses on Weeks.

ROGERS

Is there a connection between your memo, Mr. Davids, and the Cook memo?

DAVIDS

I didn't know anything about the Cook memo. I had never seen it.

Herr and Wetzel hang their heads.

WEEKS

Well, they were both written for the eighty-six budget that goes to Jesse Moore.

Just broadsided, Moore's face tells with a twitch.

ROGERS

Let's go back to the Cook memo. Were any actions taken?

WEEKS

No actions were taken. I think this is true of Mr. Moore as well, because I didn't see the memo until yesterday.

ROGERS

Did anyone else take it seriously?

MOORE

Mr. Cook is in our budget office at NASA headquarters. He's in the Comptroller's office.

ROGERS

What is your point, Mr. Moore?

MOORE

To my knowledge, no one in my office, at least in the technical program area, saw this memo from Mr. Cook.

ROGERS

Are we going to find out through these papers...

(Holds up the file Graham gave him.)

...that you spoke about budget threats and safety together?

MOORE

We didn't see it as a safety problem.

CULBERTSON

The way we use schedule threats as to schedules is the same way we use budget threats for the budget, nothing more.

ROGERS

And you are?

CULBERTSON

Phil Culbertson, General Manager.

ROGERS

Mr. Culbertson, in the Cook memo, he says discussions with engineers show it to be a potentially major problem affecting both flight safety and program cost. He says it should be noted that Code M... What is Code M?

WEEKS

Code M, Jesse Moore is the head of Code M, the Associate Administrator for Space Flight is called Code M.

MOORE

We have been following up and tests are scheduled for February.

ROGERS

This month. I think that is the answer to my question.

RIDE

You've got this O-ring as a potential budget threat. How do you define threat?

MOORE

I'd like to answer that, Sally. This goes back to our work on a filament wound case. We planned to test...

RIDE

Wait. What amount of O-ring erosion would have made it a safety of flight issue?

MULLOY

That's probably best explained in these charts.

ARMSTRONG

I find myself not really understanding the people that were involved in this.

ROGERS

Mr. Weeks, in your memo you recommend a complete briefing about the O-rings. Can I assume that was done?

WEEKS

Yes, that occurred on the nineteenth of August.

KUTYNA

Someone said "catastrophic" was an overstatement in the Cook memo. But here's another guy saying the same thing.

ROGERS

Who is the "guy" saying this, General Kutyna?

WEEKS

It was signed by myself in a 1982 waiver. But, let me say this, an Oring withstood sixteen hundred PSI which is the actual operating pressure.

RIDE

So, in eighty-two this criticality one problem was given a waiver by you, Mr. Weeks. And after that you had more problems, right?

WEEKS

Correct.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

INT. KSC - LAUNCH CONTROL ROOM - GALLERY MEETING ROOM - NIGHT

A sheet cake decorated for "Challenger STS-51 L" is cut, plated and taken by Young.

HALLWAY

Young hands a piece of cake to CHRISTA MC AULIFFE who chats on a hallway pay phone.

MC AULIFFE

Thank you, John.

(Back to call.)

Yeah, it's another pre-launch cake party, but this one will be the last. It's a good thing I'll be weightless up there.

(Listens.)

(MORE)

MC AULIFFE(cont'd)

Well, with the cold, we thought they might delay another week, but it seems they're determined to launch tomorrow, no matter what.

BACK TO SCENE: MEETING ROOM

Mulloy, a bit too assertive in his response.

MULLOY

None of the data had really changed! None of it!

ROGERS

Are you suggesting that these O-rings did not cause the Challenger accident?

MULLOY

I'm not aware of anything that caused the accident yet.

ROGERS

I asked you just a moment ago if these seals would be a concern today and you said no.

MULLOY

Sir, I said I have no data that changes the basis for that being a criticality one item. The thing that changed it from a criticality one redundant to a criticality one is still valid today.

ROGERS

I don't think that anybody who hears that could understand that. Dr. Feynman.

FEYNMAN

Is there a higher safety category than that?

WEEKS

No. It means if there is a failure you can't live through it. I'd really like to finish these two charts on Titan.

RIDE

What does Titan have to do with the shuttle boosters?

WEEKS

I'm getting to that.

WALKER

Does that mean it's a single point failure?

MULLOY

Yes, loss of mission and life, Mr. Walker.

WALKER

And that doesn't necessarily give it a negative connotation?

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

INT. MORTON-THIOKOL - CONFERENCE ROOM - NIGHT

No casual meeting, all the Thiokol engineers have folders and pocket calculators at the ready. Around the table is their management team of Mason, Lund, Kilminster and Ebling.

LUND

Our conclusion is we do not recommend any launch where the joint seal temperature is below fifty-three degrees F.

THREE-WAY INTERCUT

INT. KSC - MEETING ROOM - NIGHT

The launch decision makers around the table including Reinartz, Mulloy and McDonald.

SUPER: "MORTON-THIOKOL - JANUARY 27, 1986"

INT. MSFC - CONFERENCE ROOM - NIGHT

Telecom table circled by Engineers, one of which is GEORGE HARDY.

HARDY

This is George Hardy at Marshall.

LUND

Yes, George.

HARDY

We have been listening attentively for over one hour now. It seems to me you want to establish a new launch criterion. I am appalled by this recommendation. But I would not recommend we launch when our prime contractor objects.

MULLOY

Larry Mulloy here. I have to agree with George. The eve of a launch is a helluva time to be generating new launch commit criteria. There's nothing new in the data you provided here. We went over this at the headquarters' meeting in August. When do you want me to launch, Thiokol, next April?

INT. MORTON-THIOKOL - CONFERENCE ROOM - NIGHT

Mason hits the mute switch. He looks around the room for an idea? Anything? Kilminster clicks the teleconference on.

KILMINSTER

Joe Kilminster. We'd like to take five minutes to go off line and caucus.

They wait for a response from Kennedy.

INTERCUT

INT. KSC - LAUNCH MEETING ROOM - NIGHT

Mulloy and Reinartz look smug. McDonald isn't sure what to make of the situation.

REINARTZ

We'll be right here.

END INTERCUT

BACK TO SCENE: MEETING ROOM

Kutyna stares down Mulloy.

KUTYNA

And what was the O-ring temperature on the Challenger launch?

MULLOY

About twenty-five degrees.

LUCAS

Larry, this might be a good time to explain the pressure check between the O-rings?

MULLOY

A very good time.

RIDE

Are there any internal documents about this? Because that's going to be the next question.

MOORE

I will ask Larry. Larry, any documentation at Marshall on O-ring operation at low temperatures?

MULLOY

(The line following is correct.)

There are documents that are test results that are even now in the progress of some tests that had been done previously.

RIDE

We read about problems with the O-rings in the New York Times. Are there memos about launching at low temperatures?

MULLOY

I'm not aware of any, but that's not to say there aren't any.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

INT. KSC - LAUNCH CONTROL - CORRIDOR - DAY

As a Group of NASA Engineers file into a conference room, Mulloy sipping a coffee spots and buttonholes Boisjoly.

SUPER: "KENNEDY SPACE CTR - FEBRUARY, 1985"

MULLOY

Hey, Roger, may I have a moment with you before we go back in?

BOISJOLY

Sure, Larry.

MULLOY

Your charts on cold temperature adversely affecting the O-rings, this meeting isn't the time to present those.

BOISJOLY

Oh?

MULLOY

Yeah, you know, Vandenberg launches are go for next year. Average temperature there is colder than at Kennedy. It's a launch decision. No reason to make it an issue now. Okay? Good.

Mulloy gives Boisjoly a slap on the back and goes into the meeting.

INT. MORTON-THIOKOL - CONFERENCE ROOM - NIGHT

Kilminster looks to Boisjoly and THOMPSON, another engineer.

INSERT: CLOCK - HANDS SWEEP FROM 8:45 TO PAST 9:45

BOISJOLY

There's no change in my position. This is a no go.

THOMPSON

No go.

Other Engineers in the room shake their heads no as Kilminster looks to them. Kilminster then turns to his top managers.

KILMINSTER

It's down to us.

MASON

This is one of those times you take off the engineering hat and put on your management hat. Those opposed to the launch?

END INTERCUT

BACK TO SCENE: MEETING ROOM

Rogers shuffles through his papers.

ROGERS

Next, we have a report that someone from Rockwell called and expressed concern about the icing conditions.

MOORE

We had no direct contact with anyone from Rockwell. What we did have was a meeting Mr. Aldrich held.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

INT. KSC - CORRIDOR - NIGHT

Bundled head-to-toe and red faced from the cold, ROBERT GLAYSHER, a Rockwell engineer, and CHARLIE STEVENSON the NASA Ice Team Manager walk to a door marked: "GENE THOMAS - LAUNCH DIRECTOR", knock and enter.

INT. KSC - LAUNCH DIRECTOR'S OFFICE - NIGHT

GENE THOMAS and Reinartz are having coffee as Glaysher and Stevenson enter.

THOMAS

Charlie, how's it look?

GLAYSHER

Gene, it looks like something out of Dr. Zhivago.

STEVENSON

Ice looks bad. I'd say the only choice you got today is not to go.

REINARTZ

Well, you make it sound grim.

GLAYSHER

The concern is what happens when you light her up? The ice comes loose. Does it ricochet? Get thrown against the vehicle? I don't think Rockwell will sign off.

THOMAS

You check with your people at Rockwell, Mr. Glaysher.

INT. KSC - MEETING ROOM - DAY

Glaysher dials the phone on the conference table.

GLAYSHER

Mr. Petrone? This is Robert Glaysher out at Kennedy. Sorry to call so early, but I was told you would have read my report on the ice at the pad by now.

INT. KSC - CORRIDOR - DAY

Glaysher spots Aldrich walking further down the hall and runs to catch up with him.

GLAYSHER

Arnie! Arnie!

Aldrich turns and stops as Glaysher reaches him.

GLAYSHER (cont'd)

I just got off with Rocco Petrone.

ALDRICH

How is the old man?

GLAYSHER

He's right on top of things, Arnie, just like always.

ALDRICH

Glad to hear that.

GLAYSHER

Arnie, nutshell, Rockwell cannot assure that it is safe to fly this morning.

BACK TO SCENE: MEETING ROOM

Rogers is quite tired now, he removes his glasses and rubs his eyes.

ROGERS

Is there anything else before we end today?

McDonald shoots Mulloy a look.

MULLOY

Mr. Chairman, Al McDonald from Morton-Thiokol wants to make a point.

MC DONALD

I set up the telecon for Thiokol. We recommended not to launch below fifty-three degrees. We've had blow-by at fifty-three degrees. We had data that indicated the poor resiliency of the Viton O-rings at low temperatures.

KUTYNA

You said not to launch below fiftythree. What was the actual temperature, again?

MC DONALD

The actual temperature was twentynine degrees.

ROGERS

Could you stand up again and say that a little louder so we could hear it? I'm not sure we all understood what you said.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves and into the sky.

INSERT: FAX MACHINE

Finishes printing.

INT. KSC - COMMUNICATIONS ROOM - NIGHT

Mc Donald, steaming and determined, rips the FAX off of the machine and storms out of the room.

CORRIDOR

Mc Donald marches FAX in hand.

REINARTZ'S OFFICE

Mc Donald slams the FAX on Reinartz desk.

MC DONALD

Here's your approval, but may I add my two cents?

REINARTZ

Of course, Alan.

MC DONALD

There are two other reasons to delay the launch. First, the high seas. The booster recovery ships are heading for shore. We may lose the boosters out there. We never just allow that to happen.

REINARTZ

And?

MC DONALD

You decided to open the water lines on the pad so they wouldn't freeze, but now you've got an ice situation. How can you launch with all that ice on the pad?

MULLOY

Alan, we're taking care of that. It's not your concern.

MC DONALD

Okay, Larry. That just brings us back around to what is my concern. (MORE)

MC DONALD(cont'd)

If something happens I'd hate to be the one standing in front of a board of inquiry explaining why we launched a solid rocket motor that was not qualified below forty degrees. Forty.

Getting no response, Mc Donald leaves.

MC DONALD (cont'd) What the hell is going on?

EXT. KSC - LAUNCH PAD 39B - GANTRY - NIGHT

Bundled up against the wind and cold, wearing hard hats, the Ice Crew works on the gantry superstructure.

SERIES OF SHOTS:

- A) Workers hitting down overhead ice with shovels.
- B) Workers slipping and falling on ice covered stairs.
- C) Workers breaking platform ice with iron pinch bars.
- D) Workers shoveling loads of ice on to tarpaulins.
- E) Workers dumping ice off the gantry.

INT. JSFC - BUILDING 30 - MISSION CONTROL - NIGHT

Abbey taps a pen on his clipboard as he hangs on the phone.

ABBEY

If you want to launch in the morning you'll need to issue a total system waiver for the thirty-one degree air temperature constraint. Has Petrone at Rockwell approved the launch?

(Listen.)
He did? Okay.

INT. KSC - LAUNCH CONTROL - GALLERY - NIGHT

Reinartz turns pages on a clipboard for Aldrich to sign. In the b.g. launch control is humming with activity.

REINARTZ

This waives the external tank constraint from thirty-one down to ten degrees.

Aldrich signs.

REINARTZ (cont'd)

And, this is the total system waiver for the thirty-one degree constraint.

INT. KSC - MEETING ROOM - DAY

Around the conference table are Moore, Culbertson, Aldrich, Lucas, Mulloy and Reinartz. Stevenson is being questioned.

STEVENSON

We still have a good amount of ice out there.

MOORE

So, Charlie, what's your recommendation?

STEVENSON

The less ice that falls, the better. If you wait and the sun hits it more is going to fall.

Moore glances at the wall clock

INSERT: CLOCK - NINE O'CLOCK

BACK TO SCENE

ALDRICH

Thanks, Charlie.

Stevenson leaves the room.

MOORE

That's where we stand, Phil.

Culbertson mulls.

CULBERTSON

The ice team can keep working.

ALDRICH

Sure.

EXT. OCEAN - OPEN WATER - DAY

The rain of twisting silver and black confetti ends.

SUPER: "T + 51 mins 04 secs" (counting up.)

The thumping DRONE of approaching helicopters.

GREENE (O.S.)

LSO, flight. Situation?

LSO

This is LSO. The copters are in but nothing sighted, sir.

INT. NASA OFFICES - GRAHAM'S OFFICE - DAY

Graham, documents in hand, is pacing around Culbertson.

GRAHAM

One question, Phil, just one. Why wasn't I told about the O-rings?

CULBERTSON

It's in every flight readiness review, every budget threat report, every criticality one review, every...

GRAHAM

You're no longer General Manager. You will have nothing to do with any major program area.

CULBERTSON

Okay, if you need me, I guess I'll be running the copy machine.

INT. COOK'S HOME - LIVING ROOM - NIGHT

Cook watches a cable news channel on television.

ON TELEVISION

REPORTER

The Wall Street Journal reported that Mr. Cook had only been working at NASA two weeks when he wrote about solid rocket booster problems. His supervisor wasn't happy with the memo because it asked more questions than it answered.

BACK TO SCENE

The kitchen phone rings.

PHYLLIS (O.C.)

Hello.

(Listens.)

Yes. I'll get him, Mr. Mann.

Cook hops up and goes to Phyllis in the...

KITCHEN

Phyllis stays close to listen in on the conversation.

COOK

Hello.

INTERCUT:

INT. NASA OFFICES - MANN'S OFFICE - NIGHT

Mann on phone.

MANN

The Commission is going to meet tomorrow.

COOK

Tomorrow? I thought they were going to Kennedy to meet on Thursday.

MANN

Change of plans. Anyway, Jesse Moore wants you to attend. I don't really know, but you might want to be prepared to testify. Your back still bothering you?

COOK

Yes, it is, but I'll be there.

END INTERCUT

INT. COOK'S OFFICE - DAY

Cook, on crutches and wearing his best suit, gets to his desk to find a pile of pink slip messages.

INSERT

Messages flipped in Cook's hands from major media outlets.

BACK TO SCENE

Cook trashes the messages. Mann enters in a huff.

MANN

Let's go. We're going to Code M.

Mann leaves Cook behind to gather his things and catch up.

EXT. WASHINGTON DC - SIXTH ST. & MARYLAND AVE. - DAY

Mann waits on the corner for Cook to finish limping across.

MANN

Were you the one who leaked the documents?

COOK

No.

MANN

I'm surprised. I've been really angry at you, because I thought you were the one. This may just destroy my branch!

COOK

I really didn't appreciate what you said about me to the Wall Street Journal. Where have you been on this? You never answered my memos.

MANN

Don't you understand that the press just wants to sell papers? If anyone asks you, tell them your memo was reviewed and that the problem was being taken care of.

Cook salutes Mann.

COOK

Yes, sir. STS is operational, we will fly as is, sir.

INT. NASA HQ - MOORE'S OFFICE - DAY

Cook and Moore stare at each other for an uncomfortable time.

COOK

Everything about this is going to come out.

Moore takes a deep breath and holds down his anger.

MOORE

Yes, everything is going to come out.

INT. GOVERNMENT STATION WAGON - DAY

The Driver pulls off. In the back seat, Cook, holding his crutches, sits between Mann and Moore who stare out their windows. Cook looks straight ahead.

INT. AUDITORIUM - DAY

Cook before the Rogers Commission.

ROGERS

You didn't really mean to criticize your associates in public, did you?

COOK

No, I didn't, but I didn't say anything in my memos that I couldn't back up and stand behind.

ROGERS

No, I understand. I am really not asking you to back down at all.

COOK

I would urge you to speak with the ordinary working guys, the engineers. If everyone with first hand knowledge can speak freely, I think you'll have a good investigation.

EXT. WASHINGTON DC - TREASURY BUILDING - DAY - ESTABLISHING

Freestanding metal sign: "U.S. Department of the Treasury"

INT. TREASURY BUILDING - CONFERENCE ROOM - DAY

On one side of a massive table is ANDY, well-mannered, suspender wearing man with a neat mustache, and two middle-aged women in business suits: SUZY and CHRISTINE.

On the other side is Cook, who tries not to look at his new supervisor, DAN, who stares at Cook with undisguised disdain.

ANDY

You're pretty well known.

COOK

I suppose so.

ANDY

We're getting all kinds of press calls for you. I've never seen anything like it.

Andy puts a stack of pink message slips on the table.

COOK

Well, I can't help it.

ANDY

What should we do with all these?

COOK

Why don't you just give them to me and I'll answer them on my own time.

ANDY

Okay by me. Anyone have a problem with that?

Cook stuffs the messages in his pocket.

ANDY (cont'd)

I assume you came here to work?

COOK

Yes, Sir.

ANDY

Good luck to you, Mr. Cook.

Andy, Suzy and Christine get up and file out of the room.

DAN

Are you a professional whistleblower?

COOK

No.

EXT. POTOMAC WATERFRONT - NIGHT

Rogers, bundled against the cold, quicksteps to the door under the Chadwick's Bar & Grill sign.

INT. CHADWICK'S BAR & GRILL - BOOTH - NIGHT

Meese and Rogers over drinks.

ROGERS

There's a cancer at the space agency. It's inoperable.

MEESE

What now?

ROGERS

We have an American hero in Mr. Mc Donald. As it stands now, I'm not interested in anything but making scapegoats of Thiokol and Marshall.

MEESE

So, where do you draw the line?

ROGERS

It appears to me that Mr. Moore and Mr. Aldrich were never in the loop about this misguided decision.

MEESE

And Graham?

ROGERS

He just got there, forchristsakes.

MEESE

Is that far enough away?

ROGERS

It will have to do. It's your ball now. Tell Donald to run with it.

INT. U.S. SENATE - CORRIDOR - DAY

Cook walks eagerly through a dense crowd of REPORTERS, GOVERNMENT OFFICIALS and LOBBYISTS. Uniformed Capitol Police work to control the foot traffic.

At a door to a Senate Hearing room, Cook shows a letter to the Guard who lets him pass.

INT. U.S. SENATE - HEARING ROOM - DAY

Rogers testifies before a committee that includes ERNEST HOLLINGS, 60's; a witty man, glasses perched low on his nose.

ROGERS

The decision to launch was flawed. Some of those involved were unaware of the recent history of problems.

HOLLINGS

As everyone here has gushed, your Commission's work is to be commended.

ROGERS

Thank you, Senator.

HOLLINGS

But, there is an area where you and I differ a little. You say the process was flawed.

ROGERS

Horribly.

HOLLINGS

I find the process and the safety procedures were violated. Wasn't there tremendous pressure on NASA? Pressure to militarize, budget pressure, pressures to put politicians and others into space?

ROGERS

NASA managers assured us that such pressures would never infringe on any one launch decision.

HOLLINGS

What about that wonderfully uplifting State of the Union message? There is no question in this senator's mind that the president was going to refer to Christa McAuliffe.

ROGERS

I sat down with the two people most involved, Jesse Moore and Arnold Aldrich. They assured me that nothing like that ever happened.

INT. U.S. SENATE - CORRIDOR - DAY

Cook exits the Hearing Room with the crowd. A TV REPORTER spots him.

TV REPORTER

Mr. Cook! Mr. Cook!

(Cook turns.)

May we ask you some questions?

COOK

Sure.

The TV CREWS and REPORTERS surround Cook.

TV REPORTER

Mr. Cook, do feel vindicated by the recent news reports that NASA overrode engineers' safety warnings in order to launch?

COOK

I didn't need to be vindicated. I knew I was telling the truth.

TV REPORTER

What do you think came out of the hearings today?

Cook pauses to think.

ANOTHER REPORTER

Is the matter settled? Was it the launch process that was flawed?

COOK

The Senate hearings have showed... That for some reason, the Presidential Commission did not ask the questions that need to be asked.

INT. FORT MEYER OFFICER'S CLUB - BAR/LOUNGE - DAY

Sitting across from each other at a table. Bowman looks at Cook in a way that would make anyone squirm.

COOK

I've done a lot of work on this. I believe there's a case to be made.

BOWMAN

Okay. Let's hear it.

INT. CONFERENCE ROOM - DAY

The "National Press Club" logo is mounted on a carpet covered wall behind a conference table. Identified by placards, Cook sits beside Bowman.

BOWMAN

Where did the Rogers Commission put the responsibility? A communications failure, a process failure.

An audience of poker-faced REPORTERS listen.

BOWMAN (cont'd)

If you look at the facts it's obvious the decision to launch Challenger was not just a questionable misjudgment. It was nothing short of reckless.

Bowman gives up the microphones to Cook.

COOK

This morning, in a letter I delivered to Attorney General Edwin Meese, we requested a new investigation. One question must be answered. Why did they launch when they knew they shouldn't?

Shouting comes from a HECKLER in the back of the room.

HECKLER (O.C.)

But they denied it!

Cook and Bowman squint to look beyond the camera lights.

HECKLER (cont'd)

They denied it! The White House denied it!

The Heckler is a television reporter.

REPORTERS (ADLIB)

What about that? What proof do you have? We've been over this before. It's the same old stuff.

COOK

Despite the White House denials it's clear that Christa McAuliffe, the Teacher-in-Space, was to be featured in the President's State of the Union message.

REPORTERS (ADLIB)

What's wrong with that? It doesn't prove anything. Who do you guys think you are?

COOK

Larry Speakes admitted that he lied about it.

REPORTERS (ADLIB)

So what! Big deal. Why did you get us all out here? This isn't news. We've heard this a hundred times.

Cook and Bowman look at each other in shock, further attempts to speak being futile. Cook covers the microphone.

COOK

(To Bowman.)

What's going on?

BOWMAN

That's a good question.

INT. COMMISSION OFFICES - CONFERENCE ROOM - DAY

A testy FBI agent, JOHN MOLESWORTH, prepares to interview Cook. FRANK CURRAN, another investigator, waits nearby. Molesworth turns on a tape recorder and then turns it off.

MOLESWORTH

The only people who believe you are Senator Hollings and the press.

COOK

Well, actually, that's quite a good number of people. I'm just trying to understand why NASA did launch the Challenger when they knew they shouldn't have.

MOLESWORTH

So are we.

Molesworth pushes the tape cassette in and presses record.

MOLESWORTH (cont'd)

What information can you provide to verify that the launch of Challenger was linked to the State of the Union address?

COOK

The circumstantial evidence points to it. Here are some good questions. How could Jesse Moore not have been informed about cold temperature effects on the O-rings? How did he not know two contractors were opposed to the launch? What was said in the Holiday Inn meeting between Lucas and Reinartz? They were set to cancel the launch, but suddenly it was on.

MOLESWORTH

You're not the one asking the questions here. I am!

COOK

Christen Dolan of CNN told me there were pre-launch phone calls between NASA and the White House.

MOLESWORTH

And?

COOK

NASA requested a phone hook up between the President and Challenger scheduled for the time of the State of the Union message.

MOLESWORTH

That's it?

COOK

Yes.

MOLESWORTH

Why don't you just say you don't have any first-hand information?

Curran pulls up a chair.

CURRAN

Rick, I'm with NASA's Office of the Inspector General. Why didn't you come to us, with your concerns?

COOK

I was working in the proper channels. It wasn't until the politics between the White House and Beggs and Graham...

(Stops cold.)

You don't care about this, do you?

CURRAN

No.

COOK

Okay. Here's something you might care about then.

Out of his briefcase, Cook produces a large file and places it on the table in front of Curran.

COOK (cont'd)

The Centaur upper stage rocket.

CURRAN

What about it?

COOK

It's another Challenger waiting in the wings. The astronauts call it "the bomb-in-the-bay."

Curran stares at the file but won't touch it.

COOK (cont'd)

Are you going to read it?

(Waits.)

Are you going to read it?!

CURRAN

Yes. Okay?

INT. COOK'S SUPERVISOR'S OFFICE - DAY

Cook's TREASURY SUPERVISOR, 30's, female, a prim and proper professional bureaucrat sits upright behind her desk, the object of her lecture is Cook.

TREASURY SUPERVISOR

You may not use the department's computer or your work time to pursue whatever noble grudge you have against NASA. Do we understand each other?

COOK

Yes.

TREASURY SUPERVISOR

Good.

She comes out from behind her desk and sits next to him.

TREASURY SUPERVISOR (cont'd)

You're a young man, married, with children. You have, what? About twenty years until you can retire? I want you to think long and hard about what you'll do if the government fires you.

Cook nods.

TREASURY SUPERVISOR (cont'd)

I'm not unsympathetic, but you've got to put this aside or you're not going to make it. Take some of your comp time. Then come back with a new attitude.

EXT/INT. COOK'S HOME - KITCHEN - BACK DOOR - DAY

Cook gleefully bolts into the kitchen and gives Phyllis, Adele and Fred kisses.

PHYLLIS

Rick? Why are you home early? What's going on?

COOK

I've got two weeks off. They want to come after me? Screw them. I'm going after them.

ADELE

Mommy, what's screw them mean?

PHYLLIS

It means some people need to be put back together.

INT. COOK HOME - KITCHEN - DAY

Cook paces as he talks on the phone. The table littered with papers from a file box marked "Challenger."

COOK

Paul, it's been a long time. Yeah. Have a minute? Can I ask you something? I'm trying to figure out why they launched.

(Listens.)

Sure. I understand.

Cook hangs up and finds another number.

COOK (cont'd)

Larry? Hi, this is Rick Cook. Hello? Hello?

Cook dials another number.

COOK (cont'd)

Dr. Lucas, I'm not sure if you remember me. I'm Rick Cook. I worked... You do. Well, the reason I'm calling.

(Listens.)

Some people have said that about me. But does that mean we can't talk? Hello? Hello?

Cook dials another number.

COOK (cont'd)

Well, Mr. Moore it's good to see you've landed on your feet over at Ball Aerospace. Good for you.

(Listens.)

This is Rick Cook. Can we talk about...

(Listens.)

Funny, Dr. Lucas just called me those same names. Isn't there anything you'd like to say?

(Listens.)

Yes. And all the best to you too.

COOK (cont'd)

Public Affairs, Mr. James Ball, please.

(Waits.)

Mr. Ball? Hi, I'm Rick Cook. I understand that you were present for the weather briefing the night before the postponed Challenger launch for Sunday, January twenty-sixth. You were.

EXT. KSC - VEHICLE ASSEMBLY BUILDING - DAY

JIM BALL, a NASA public affairs officer, reluctantly talks to Cook as they walk.

COOK

Do you know why Graham cancelled the Sunday launch?

BALL

Why? That's a tricky word, Mr. Cook. I don't think I know why.

COOK

Okay. Your boss testified it was the worst weather forecast ever for a shuttle launch.

BALL

(Smiles.)

No. We had countdowns where it rained so hard we couldn't see the lights on the pad from control. We never made judgments to launch based on a weather forecast.

COOK

Before Challenger?

BALL

And boy, let me tell you, the press was miffed. They were here five days at that point. Do you know about the ovality rule?

(Cook shakes his head.)
You said you worked on Centaur, right?

(Cook nods.)

Then you know something about cryogenic fueling.

COOK

What about it?

Ball smiles, zips his lips with his fingers, and walks off.

INT. KSC - LAUNCH CONTROL - MEZZANINE - NIGHT

This glass walled room hangs over the main floor of Launch Control. Around a table are Culbertson, Moore, Graham, Aldrich, Lucas, Mulloy, Reinartz and Thomas.

MOORE

Doctor, standard procedure is to have the crew in the orbiter ready to go if there's a break in the weather.

CULBERTSON

In New England they have a saying, don't like the weather? Just wait an hour. Same thing here.

ALDRICH

Phil, say it ain't so. You like New England for tomorrow's Super Bowl?

CULBERTSON

Yes, I do, Arnie.

Smiles all around.

GRAHAM

Well, the sooner the better.

THOMAS

Then the launch windows will be tomorrow, Monday and then again on Wednesday.

Graham shoots Culbertson a questioning look.

CULBERTSON

Gene, where are we in the countdown?

THOMAS

We're scheduled to start fueling the external tank in about an hour.

GRAHAM

Why can't we launch on Tuesday?

LUCAS

The ovality rule. We cannot fuel and drain cryogenics more than two days in a row. It can do serious damage to the hardware.

Graham looks to Culbertson.

GRAHAM

I'd like a word with Phil. Would you gentlemen excuse us for a moment?

The others file out. Culbertson speaks in a hushed voice.

CULBERTSON

Tomorrow's forecast is for more rain. If we lose tomorrow, we've got Monday, but not Tuesday if we start fueling tonight.

GRAHAM

If we cancel tomorrow, which we know is going to be bad, we get Monday and Tuesday, right.

CULBERTSON

Right.

GRAHAM

Scrap tomorrow's launch.

EXT. WASHINGTON DC - NATIONAL MALL - DAY

Bowman and Cook meet in the shadow of the Capitol Building.

COOK

So, Phil Culbertson was willing to talk?

BOWMAN

You can imagine how he feels after what Graham did to him.

COOK

And Christa as the State of the Union hero?

BOWMAN

I asked Culbertson straight out and he told me the White House denials were ridiculous. The Jet Propulsion Laboratory says they were asked to have a clear channel to Challenger during the President's message.

COOK

Thanks. The sum of the parts just keeps getting bigger.

BOWMAN

Rick, we tried this. Why do you keep going?

COOK

Because it was easier for a bunch of guys at NASA to let astronauts die than to just say no.

BOWMAN

And if no one else seems to care?

COOK

That will be alright too.

INT. KSC - LAUNCH CONTROL - MEZZANINE ROOM - DAY

Graham, on the phone, looks out over Launch Control.

INTERCUT:

INT. NASA HQ - CODE M CONFERENCE ROOM - DAY

Culbertson reads from a memo to Graham.

CULBERTSON

Tonight while I am speaking to you, a young elementary school teacher from Concord, New Hampshire, is taking us all on the ultimate field trip, as she orbits the Earth as the first citizen-passenger on the space shuttle.

GRAHAM

That's perfect. Good job. Send it over to the White House.

INT. NATIONAL ARCHIVES - RESEARCH ROOM - DAY

Cook makes a note, writing in pencil on colored paper.

INSERT: COOK'S NOTES

TRAPNELL: "the package you put together for _____?"

HERR: "That's right and I put a note in there to _____?"

BACK TO SCENE

Cook looks ahead going on in the stack of papers.

COOK

(Mumbling to himself.)

Inaudible?

(Turns a page.)

Inaudible?

(Turns a page.)

Inaudible. Inaudible.

Cook gets up with the pages in hand.

ARCHIVIST DESK

ARCHIVIST

Yes, Mr. Cook?

COOK

According to this transcript, large parts of this interview were inaudible. Would it be possible for me to listen to the audio tape?

ARCHIVIST

I don't see why not. We have them.

RESEARCH ROOM

Cook dons headphones, pushes the play button on a tape recorder and listens, pencil and paper at the ready.

Cook clicks fast forward and listens again...

Fast forward, listen, fast forward, listen, fast forward listen... Long fast forward.... Listen.

ARCHIVIST DESK

ARCHIVIST (cont'd)

Yes, Mr. Cook?

COOK

There doesn't seem to be anything on this tape. Could you have it checked?

ARCHIVIST

Sure.

RESEARCH ROOM

The Archivist approaches Cook who is reading.

ARCHIVIST (cont'd)

Mr. Cook, the audio researcher let me know that there was nothing on the tape you wanted checked.

COOK

Was it erased?

ARCHIVIST

He said it was never recorded on at all. He also told me several other tapes in the collection are blank.

COOK

Can someone look into how blank tapes are in the official record?

ARCHIVIST

I'll get you a form.

COOK

You know what? Don't bother.

INT. COOK'S HOME - ATTIC - NIGHT

A bare light bulb is switched on. SPRINGS GROAN as pull-down stairs are opened. Cook mounts the stairs into the attic carrying a large file box. He sets the box down and climbs down out-of-sight. The box is marked "Challenger." The trap door closes. The light goes out.

INT. COOK'S HOME - BEDROOM - NIGHT

Phyllis is in bed reading. Cook climbs into his side of the bed, lies on his back and lets his head sink into the pillow.

PHYLLIS

Why did you do that?

COOK

What?

PHYLLIS

You know what.

COOK

Because I can't prove explicitly that he was involved. I've had enough.

She kisses him and snuggles up.

INT. TELEVISION STUDIO - INTERVIEW SET - DAY

A TALK SHOW HOST interviews ED HELIN, 70's; a hip, fit and handsome man.

SHOW HOST

Since Kitty Kelley's unauthorized biography of Nancy Reagan, you have publicly stated you were one of the Reagan astrologers. HELIN

I've known the Reagans since the forties.

SHOW HOST

How did it work?

HELIN

I prepared the astrological charts personally. Then I would call the Chief of Staff.

SHOW HOST

Donald Regan?

HELIN

Yes. And he kept a special calendar for the President of good days, iffy days and bad days for the coming months.

INT. COOK'S HOME - LIVING ROOM - NIGHT

Phyllis strolls through the room burdened by a basket of laundry, the television on and tuned to the Helin talk show.

SHOW HOST

What were some of the big events you gave advice about?

HELIN

Maybe the biggest was the Challenger launch.

Phyllis stops dead in her tracks.

EXT. LOS ANGELES - OCEAN VIEW HOME - POOL DECK - DAY

Cook sits across from Helin who holds Cook's hands in his, eyes closed. Then opens his eyes and smiles.

HELIN

You have a certain vulnerability, and I mean that in a good way.

COOK

Thank you. And thanks for taking the time to see me. You've said you advised the White House on the fatal Challenger launch.

HELIN

That's right.

COOK

Just to be clear, who did you talk to specifically?

HELIN

Oh, I talked directly to President Reagan. He called me.

COOK

About the Challenger?

HELIN

The ill-fated Challenger, yes. I told him January twenty-eighth was not a good day to launch according to the stars.

COOK

Did the President know that NASA had weather concerns?

HELIN

Yes, about the cold.

COOK

Well, I'm confused. Then who decided to launch?

HELIN

The President.

COOK

Sir, are you telling me that the President personally made the decision to launch Challenger in spite of what he knew were NASA's concerns with the cold weather?

HELIN

Yes. You know, the reason I think he did that was pressure from the media. The TV networks told him they were spending a million dollars a day keeping their crews there for the Teacher-in-Space.

COOK

The networks pressured him directly?

HELIN

Oh, they were hounding him.

COOK

Thank you. Thank you very much, Mr. Helin.

HELIN

You're welcome. On what day and at what time were you born, Mr. Cook? Maybe I can help you more?

Cook flusters, stands and smiles kindly.

COOK

You've helped me enough. Thank you, again.

EXT. OCEAN - OPEN WATER - DAY

Twisting silver and black confetti flies off the waves.

SUPER: "T + 05 mins 19 secs" (counting up)

INSERT: CALENDAR ON THE CHIEF OF STAFF'S DESK

A finger passes over yellow and pink highlighted dates until it finds January 27, 1986 in green, then moves on to January 28, 1986 in pink.

INT. THE WEST WING - CHIEF OF STAFF OFFICE - DAY

At his desk, Chief of Staff Don Regan places the calendar back in his drawer and dials the phone. The evanescent twilight dims the office.

REGAN

We lost the launch over a stuck bolt! It's not the press drubbing NASA's taking. The big boys are calling directly, telling the President they're losing millions every hour those crews wait.

(Listens.)

Do everything you can to make this happen. That's all I ask.

EXT. HOLIDAY INN - MOTEL ROOM DOOR - DAY

Mulloy and Reinartz exit the room and get in their rental car.

HOLIDAY INN SIGN

Twilight. The rental car passes the sign.

EXT. OCEAN - OPEN WATER - DAY

A shuttle orbiter wing cartwheels along the top of the water.

INT. HOUSE - ATTIC - NIGHT

A bare light bulb is switched on. SPRINGS GROAN as pull-down stairs are opened. Cook mounts the stairs, finds the "Challenger" box, takes it down and closes the trap door.

EXT. COOK'S HOME - BACKYARD - DAY

Cook is digging postholes for a new partially constructed fence. Tim stands by playing with a garden hose. Adele comes running out of the house to him holding a cordless phone. Phyllis follows, a concerned look on her face.

COOK'S DAUGHTER
Daddy, Daddy, it's the space men,
they want to talk to you!

PHYLLIS

She wanted to take it to you.

Cook takes the phone, grabs Adele and gives her a kiss. She escapes with a giggle and clings to her mom.

COOK

(On phone.)

Rick Cook.

INTERCUT:

INT. NASA OFFICES - CURRAN'S OFFICE - DAY

Curran on the phone.

CURRAN

Mr. Cook, this is Frank Curran.

COOK

Frank Curran?

CURRAN

We met a ways back. I'm with NASA's Office of the Inspector General. Do you recall now?

COOK

Oh, yes. What can I do for you, Inspector?

CURRAN

I just thought you might like to know. NASA terminated the Centaur upper stage for the space shuttle.

COOK

When?

CURRAN

Just now. I thought you would like to know, no more "bomb-in-the-bay."

COOK

Thank you, Mr. Curran.

CURRAN

Thank you, Mr. Cook.

Cook clicks off and turns to Phyllis.

COOK

They called to tell me that they killed the Centaur.

Phyllis smiles and hugs him. Adele wants to join in.

ADELE

Me too! Me too!

EXT. THE ATLANTIC OCEAN - OPEN WATER - DAY

A gray sky above calm water. The RUMBLE, GURGLE and POUNDING from the engines of a large vessel approaching.

SUPER: "T + 67 days 16 hours 27 mins 54 secs" (counting up)

THE NAVY SHIP PRESERVER

Glides into view, cuts its engines and drops anchor.

PRESERVER'S BOOM CRANE

Reels in cable under the direction of a FOREMAN's signals.

IN THE WATER

NAVY DIVERS surface in a circumference several yards away from the hoist cable.

A huge ball of debris in a web of electrical wires, tubing and twisted metal, the remains of the Challenger crew cabin, emerge from water.

A summer downpour begins.

The crane swings to bring the crew cabin over the ship's deck. A bosun's WHISTLE sounds. The SHIP'S CREW stands silently, heads bowed.

SUPER: "T + 67 days 16 hours 58 mins 36 secs" (Freezes)

SERIES OF SHOTS

- A) Reagan's Challenger Memorial speech, "Slip the surly bonds of earth..." (ARCHIVE FOOTAGE)
- B) The Challenger Crew leaving for the launch pad, "Lots of smiles today..." (ARCHIVE FOOTAGE)
- C) The famous contrails of the destroyed craft in the blue sky. (ARCHIVE FOOTAGE)

INT. SUPERMARKET - CHECKOUT - DAY

Cook stands behind his shopping cart eyeing a nearby rack of magazines. Headlines read "Spy Hunt: Fed Quiz 50,000 Iraqis in US", "WAR CRY: Bush Ties Iraq to Terror", and "Bush to Saddam: Time's Up!"

SUPER: "FEBRUARY 2003"

The SHOPPER in front of Cook writes a check and chats to the CLERK.

SHOPPER (O.C.)
Did you hear about the shuttle?

Cook perks up.

CLERK

The shuttle?

SHOPPER

The space shuttle. Awful. It burned up on the way back this morning over Texas. All seven are gone.

FADE OUT

TITLE: "On July 7, 1988, Attorney General Edwin Meese apologized to James M. Beggs for the Justice Department's wrongful indictment of him on fraud charges."

TITLE: "In January 2007 Richard C. Cook retired from the U.S. Treasury Department completing 32 years of government service. His book *Challenger Revealed* was published three weeks later."

FADE TO BLACK