

# Apollo 13

Directed by Ron Howard, Rated PG, 135 Minutes, Presented by MCA/Universal Signature Collection

## Primary Cast & Credits

Jim Lovell	Tom Hanks	Barbara Lovell	Nary Kate Schellhardt
Fred Haise	Bill Paxton	Susan Lovell	Emily Ann Lloyd
Jack Swigert	Kevin Bacon	Directed by	Ron Howard, AKA: Ronny Howard
Ken Mattingly	Gary Sinise	Produced by	Brian Grazer
Gene Kranz	Ed Harris	Screenplay by	William Broyles Jr and Al Reinert
Marilyn Lovell	Kathleen Quinlan	Based on the book by	Jim Lovell and Jeffrey Kluger

## Chapter 1, The Moon Walk

One of the things that this film does is provides a wide historical background to the entire United States Space program, this was not the intention of the director Ron Howard. His intention was to simply document one mission, the individuals involved and the challenges that they faced, it was an extraordinary mission and he intended to simply stick to the facts about the mission, as much as possible. At the same time it was an attempt to establish in the mind of the audience that there is real danger in out space exploration. Budget \$62 million.

**Biography for** Ron Howard, **Date of birth** 1 March 1954, Duncan, OK, **Birth name** Ronald William Howard, **Height** 5' 9"

**Mini biography** Ron was born in Oklahoma, into an acting family - his father had realized a boyhood dream of acting by attending the University of Oklahoma and majoring in drama, and his mother went through acting school in New York. He was in his first movie at 18 months, *Frontier Woman* (1956), although his first real part was at the age of 4. Soon a regular on "Playhouse 90" (1956) he was cast as Opie on "Andy Griffith Show, The" (1960), and later moved from a child in *Mayberry to America's teenager* as Richie Cunningham in "Happy Days" (1974). The life of a child star is certainly not routine, but Ron's parents wanted his life to be as normal as possible - he attended public schools and at age 15 even took nine months off to play a basketball season. The transition from child actor to adult actor is always difficult, but for Ron the real transition was from child actor to adult director. There were some film roles, such as *Shootist, The* (1976) for which he received a Golden Globe nomination, but his dream and now his focus was directing. He had begun shooting films at age 15 with a Super-8 camera, and after high school spent two years in a film program at the University of Southern California, but then left, feeling he could learn more from actual experience. That first film was the hardest to finance, but he struck a deal with Roger Corman - he would star in *Eat My Dust!* (1976) and Corman would produce *Grand Theft Auto* (1977) which Howard would direct (he also wrote the script and starred). It was a success, and his directorial career was jump-started. Married since 1975 to his high school sweetheart, he, in 1997, is enjoying a life of telling stories as one of Hollywood's top directors.

**Spouse** Cheryl Howard, June 7, 1975-present, 4 children

**Trade mark** Frequently casts brother Clint Howard in small roles and uses music by James Horner.

### Trivia

- Three of Howard's four children are named after the places they were conceived: Bryce Dallas in Dallas; Paige Carlyle and Jocelyn Carlyle at the Hotel Carlyle in New York City.
- Acted with Kathleen Quinlan in *American Graffiti* (1973), then directed her in *Apollo 13* (1995).
- Cast both of his parents in *Apollo 13* (1995). Daughter Bryce also has a cameo appearance.
- Recipient of a (USA) National Medal of Arts, 2003.

**Salary** *Eat My Dust*, \$100,000 + %

### Biography from Leonard Maltin's Movie Encyclopedia:

Since directing his first film for low-budget king Roger Corman, this red-headed, freckle-faced former child actor has become one of today's most popular mainstream directors. For years he played the precocious Opie on TV's classic "The Andy Griffith Show" (1960-68) and later essayed the role of milk-fed nice-guy Richie Cunningham on the nostalgic "Happy Days" (1974-80). He made his film debut at age five in the Yul Brynner adventure *The Journey* (1959) and subsequently became one of the 1960s' most recognizable juvenile stars. (Who could forget him, lisp and all, in 1962's *The Music Man*?) *Grand Theft Auto* (1977), a car chase flick aimed primarily at drive-ins, was his first stab at feature directing, though its routine contents offered no hint of the savvy work to follow. Howard has gone on to direct extremely popular mainstream movies, including *Night Shift* (1982), *Splash* (1984), *Cocoon* (1985), and *Parenthood* (1989), often in collaboration with writers Lowell Ganz and Babaloo Mandel. At their best, these films are smart, straightforward, and self-assured. Even his lesser films are entertaining; if anything, they suffer from formulaic scripts, not a lack of filmmaking knowhow: *Gung Ho* (1986), *Willow* (1988), *Backdraft* (1991), and *Far and Away* (1992). His latest films are *The Paper* (1994) and *Apollo 13* (1995). Other acting credits include *Door-to-Door Maniac* (1961), *The Courtship of Eddie's Father* (1963), *Village of the Giants* (1965), *The Wild Country*, *Happy Mother's Day*, *Love George*, *American Graffiti* (all 1973), *Eat My Dust* and *The Shootist* (both 1976). His parents are actors Rance and Jean Howard; brother Clint also is an actor, who turns up in everything Ron directs. *Copyright* © 1994 Leonard Maltin, used by arrangement with *Signet*, a division of *Penguin Putnam, Inc.*

The only deviation to the Apollo 13 story is this stylized clip about the Apollo 1 fire. (Apollo 1, January 27, 1967) And then the great triumphs of Apollo 11, (Launched July 16, returned July

24, 1969) the first moon walk July 20, 1969. Apollo 12 was the second mission to land on the moon.

These shots of Walter Cronkite are stock footage of his news reports at this time. Walter Cronkite did come in to the studio to film some shot copy to help with the blending. Such as that opening narration, that was all new material for him. Ron Howard stated that they gave the copy to Walter Cronkite, and then he narrated it or cut it to make his own style of news reporting.

This party never happened for the moonwalk, which took place with Apollo 11, launched July 20, 1969, but they had to take some creative license in presenting the story. These photos and memorabilia are from Jim Lovell's own study, he loaned them to the studio for this film. Some of the mementos they made copies of, as they were worried they might actually get destroyed or ruined in the filing process. What you see displayed on the television screen is actual footage.

The real Marilyn Lovell came by and visited the set on the day of this party filming; she said it was like a flashback in time. The artist directors had recreated their home from old photographs of the Lovell's. She just couldn't believe it.

Great reaction shot of Tom Hanks. Ron Howard saw this reaction and had the camera move in on him to catch his all-encompassing expression. Here he expresses his passion for space travel and even his disappointment at not being there first hand.

**Biography for Tom Hanks, Date of birth (location),** 9 July 1956, Concord, CA, **Birth name** Thomas J. Hanks, **Height** 6' 1"

**Mini biography** Born in California, Tom Hanks grew up in what he calls a 'fractured' family. His parents were pioneers in the development of marriage dissolution law in that state, and Tom moved around a lot, living with a succession of step-families. No problems, no abuse, no alcoholism, just a confused childhood. He had no acting experience in college, and in fact credits the fact that he couldn't get cast in a college play with actually starting his career - he went downtown, auditioned for a community theater play, was invited by the director of that play to go to Cleveland, and there his acting career started. He met his second wife, actress Rita Wilson on the set of the movie *Volunteers* (1985) - they have two children and Tom has another son and daughter by his first wife. In 1996 he made his first step behind the camera, directing as well as starring and writing the film *That Thing You Do!* (1996).

**Spouse**

Rita Wilson (30 April 1988 - present) two children.

Samantha Lewes (1978 - 1987) (divorced) 2 children

**Trade mark,** Playing conflicted regular guys

**Trivia**

- Received the Distinguished Public Service Award, the U. S. Navy's highest civilian honor, on Veterans Day 1999 for his work in the movie *Saving Private Ryan* (1998).
- Was only first actor to win back-to-back Oscars since 'Spencer Tracy' for *Captains Courageous* (1937) and *Boys Town* (1938).
- Attended Skyline high school, Oakland, California.
- Attended Chabot College in Hayward, California.
- Attended California State University, Sacramento.
- Received American Film Institute's Life Achievement Award, presented by fellow Oscar-winner Steven Spielberg on 12 June 2002 in Los Angeles. The youngest ever recipient.
- Returned to Skyline High School, his old school in Oakland, CA, to dedicate a renovated theater named for Rawley T. Farnsworth, the retired drama teacher he thanked in his "Philadelphia" Oscar speech. Oakland Tribune reports Hanks donated about 1/4 of the \$465,000 cost of the project. Then he led audience of some 1000 people in chorus of "There's No Business Like Show Business". (3 June 2002)
- Is a member of the International Thespian Society (a group supporting theatre for high school students internationally).
- Jim Lovell, whom Hanks played in *Apollo 13* (1995), is actually left-handed, but Hanks refused to write with his left hand for the movie.

**Salary**

<u><i>Cast Away</i> (2000)</u>	\$20,000,000
<u><i>Green Mile, The</i> (1999)</u>	\$20,000,000
<u><i>Toy Story 2</i> (1999)</u>	\$5,000,000
<u><i>You've Got Mail</i> (1998)</u>	\$20,000,000
<u><i>Saving Private Ryan</i> (1998)</u>	\$40,000,000+ (gross and profit participations)

*Compiled by Jay Seller, Primary source director's commentary by Ron Howard, DVD version  
Copyright © 2004 by Jay Seller*

<u>Toy Story (1995)</u>	\$50,000
<u>Forrest Gump (1994)</u>	\$70,000,000 (gross and profit participations)
<u>Bonfire of the Vanities, The (1990)</u>	\$5,000,000
<u>'burbs, The (1989)</u>	\$3,500,000
<u>Splash (1984)</u>	\$70,000
<u>He Knows You're Alone (1980)</u>	\$800

**Biography from Leonard Maltin's Movie Encyclopedia:** The success of this college dropout is based on his breezy, spontaneous acting style, best exemplified in his triumphant, Oscar-nominated performance as a man who behaves like a young boy in Penny Marshall's *Big* (1988). This thin, curly-haired brunet actually made his film debut in the slasher thriller *He Knows You're Alone* eight years earlier, but didn't hit the big time until he accepted the role of reluctant cross-dresser Kip Wilson in the TV sitcom "Bosom Buddies" (1980-82). The show's success led to his being cast in the raucous *Bachelor Party* (1984), a witless but lighthearted comedy that launched him as a screen star. Hanks' choices of projects haven't always been wise ones, but he has established himself as one of the brightest and most likable personalities in contemporary movies. In such vehicles as *Splash* (1984), as a man who falls for a mermaid, and *Turner & Hooch* (1989), as a cop with a dog for a partner, he has proved to be a major box-office draw as well. He also starred as a harried homeowner in *The Money Pit* (1986), Jackie Gleason's long-suffering son in *Nothing in Common* (1986), a hip detective in *Dragnet* (1987), a failed stand-up comic in *Punchline* (1988), a nervous suburbanite in *The 'burbs* (1989), and a terminally ill human sacrifice in *Joe versus the Volcano* (1990). Hanks was badly miscast as yuppie investment banker Sherman McCoy in the ill-fated adaptation of *The Bonfire of the Vanities* (1990), but he was hardly responsible for the mess. In 1992 he gained weight to take on an unlikely character part as a boozy baseball manager/has-been in *A League of Their Own* and scored a great success, which was topped by his endearing performance as a wistful widower in the smash hit *Sleepless in Seattle* (1993) and a daring change of pace as a lawyer afflicted with AIDS in *Philadelphia* (1993), which won him an Oscar. He also made his directing debut in 1993 with episodes of the film-nourish TV series "Fallen Angels" and "A League of Their Own." Hanks cemented his superstardom with a sly comic portrayal of a slowwitted but fast-running innocent in the blockbuster *Forrest Gump* (1994); it earned him a second Best Actor Oscar. He followed this with *Apollo 13* (1995, as astronaut Jim Lovell). His wife is actress Rita Wilson, with whom he starred in *Volunteers* (1985); she contributed a hilarious scene to *Sleepless in Seattle*. *Copyright © 1994 Leonard Maltin, used by arrangement with Signet, a division of Penguin Putnam, Inc.*

## Chapter 2: The Moon and Marilyn

First thing that Kathleen Quinlan did in her character study was to study photos of Marilyn Lovell and then went and spent a couple of days with her. She came back to Ron Howard and said, "I like those short skirts. Let's go for it!" Ron Howard stated, "She looks pretty good in them."

**Biography for Kathleen Quinlan** Date of birth (location) 19 November 1954, Pasadena, CA, **Birth name** Kathleen Denise Quinlan  
**Mini biography** Only child born to Robert and Josephine Quinlan. She grew up in Mill Valley, Ca, and got her break in acting when George Lucas came to her high school to cast for his movie *American Graffiti* (1973). She followed up her one-line role 4 years later with *Lifeguard* (1976), and then several roles in the late 1970s and '80s. Her breakthrough performance came in 1994, as Marilyn Lovell in the Oscar-winning *Apollo 13* (1995), for which she was nominated for an Oscar. Today she stars in the TV series "Family Law" (1999), but her contract stipulates that she cannot work later than 6 pm, so she can be home with her husband Bruce Abbott, son Tyler (b. 1990), and step-son Dalton (b. 1989).  
**Spouse** Bruce Abbott, April 12, 1994-present

### Trivia

- Was a gymnast in high school.
- Graduate of Tamalpais High School in Mill Valley, California where she was an accomplished diver.

### Biography from Leonard Maltin's Movie Encyclopedia:

This stately, beautiful brunette brings a poetic appeal to all her roles, no matter how mundane and she's had more than her share of mundane roles. A veteran of 1970s TV shows and made-for (her first feature was 1972's *One Is a Lonely Number* and she had a small part in *American Graffiti* the following year), she won her first lead in *Lifeguard* (1976), and then earned great acclaim for her skillful performance as a teenaged schizophrenic in *I Never Promised You a Rose Garden* (1977). Big things were predicted for her, but *The Promise* (1979), *The Runner Stumbles* (1979), *Sunday Lovers* (1980), *Hanky Panky* (1982), and *Independence Day* (1983) squandered her abilities. Excellent as a compassionate, repressed schoolteacher thrust into a bizarre environment in Joe Dante's segment of 1983's *Twilight Zone-The Movie* Quinlan spent much of the decade toiling in made-for-TV movies, surfacing occasionally in lackluster feature films. By 1988 she was playing supporting roles, backing up Bruce Willis in *Sunset and Whoopi Goldberg in Clara's Heart* In 1991 she came back with a vengeance, in a plum role as a journalist who initiates rock star Jim Morrison into the dark arts in Oliver Stone's *The Doors* Quinlan's shot at stardom may have come and gone, but it's certainly not too late for her to be offered the solid parts she deserves. She was most recently featured in *Apollo 13* (1995).  
*Copyright © 1994 Leonard Maltin, used by arrangement with Signet, a division of Penguin Putnam, Inc.*

Tom Hanks himself is a very good writer and he is able to fine-tune his character within the writing of the script. He also, by the way, writes his own Academy Award Winning Speeches. This is all true, Jim did name a mountain after Marilyn, it didn't make it into the scientific register, but all the astronauts refer to it as Mount Marilyn to this day.

### **Chapter 3: The Congressman's Tour**

This is a helicopter shot of this building, and it doesn't do the building justice. It is extraordinary how this huge building just stands out there in the middle of no where.

All of these scenes were shot with blue material and the rockets are all models. They were added later, so they are not there as the actors are pretending to look at them.

Roger Coorman, he produced the first film that Ron Howard ever directed, *Grand Theft Auto* and he started a lot of director's careers, such as Francis Ford Coppola, Martin Scorsese, Jonathan Demme. This is sort of a tradition that Roger shows up in cameos of his alumnus work. This is seventeen years later and Ron Howard had never given him a job, mostly because he thought she was a loose actor. When he had the role of a penny-pinching senator, he thought he would be great for this role, as Roger will save money at all costs.

### **Chapter 4: A Slight Change in Destination**

Marilyn was superstitious and she was embarrassed about this fact. She felt that because he was the most traveled man in space, fourth time mission (which maybe the only astronaut ever to accomplish this) and she was worried that they might be pushing the envelope. But she was very hesitant to let her husband know about her own anxiety.

### **Chapter 5: The prime Crew**

In case you are wondering these guys spend about a year in the simulator during their training. It is hard to be able to present that time frame to an audience. Another really difficult task was getting the audience to understand these terms and being able to present them to the audience, so the audience could understand them and make sense of them in the drama.

### **Chapter 6: Something Bad Would Happen... March 3, 1970**

This scene was shot in typical movie style fashion. Meaning the actors are moving their arms around slowly, pretending to be weightless, but not necessarily doing the best job of it. And as the scene unfolds you realize that it wasn't real it was a dream, thus it works with some great work by Digital Domain. That bench was never in the shot with Tom Hanks. It was shot dry on the stage, with the zoom in. Then later the bench was added as it was hurtling towards Tom.

Tom does some ad-libbing in this scene. As a kid he actually put together these models and even knew all of the astronaut's names. Thus it was a very easy scene for him, but it also provided an explanation of how the mission actually would work. Ron Howard stated that he was a 'C' science student, so making this film was a real challenge for him.

This scene with the cars was shot just outside of Universal studios and not on location in Houston. The guy in the other car is Todd Hallowell, the executive producer and the director of the second unit for this movie.

The Lovell marriage is one of the few marriages to survive the space program. Both Tom and Kathleen visited with this couple before filming the movie.

This was filmed in Northridge California. They really didn't fly a jet over the neighborhood. The house in the background was earthquake damaged one of the reasons they let the filming crew come into the house, they needed the money to fix the house up. The jet was a model that was placed into the film later.

## Chapter 7: The Last Flight

The advisor for the film did not like the shot, as he stated the plane was flying too low to leave a con trail behind it, Ron Howard thought it looked cool. They joked a lot about it being the number 13. They even did some publicity stunts where they broke some glass and walked a black cat under a ladder.

## Chapter 8: Mattingly and the Measles. April 9, 1970

The public had a lot of respect for Jim Lovell and he surprised everyone when he made the statement that this was his last flight. He knew that there were a lot of guys behind him that wanted the opportunity.

Nice special effects shot with the crawler. This is the vehicle that they use for transporting all of the equipment around; the vehicle has a top speed of 2 mph. The vehicle has been used for about thirty years. Ron Howard actually drove this and had his picture taken while he was driving it. Ron Howard said he wanted to send it to Arnold Schwarzenegger, since Arnold brags about driving a Hummer around town. "I could crush the Hummer with the Crawler."

Locations: NASA is located in Houston Texas, and Cape Kennedy is located in Florida.

Mattingly described this as the most painful moment in his professional life and Gary Sinise plays the scene out here as the camera dwells on him.

**Biography for Gary Sinise, Date of birth (location),** 17 March 1955, Blue Island, Illinois, **Height** 5' 10"

**Mini biography** Gary Sinise was born in Blue Island, Illinois. His family later moved to Highland Park, where he attended high school. He was something of a rebel, playing in bands but paying little attention to school. Gary and some friends tried out for "West Side Story" as a lark, but Gary was hooked on acting for life by closing night. Gary credits his love for theatre to his drama teacher, Barbara Patterson. In 1974, Gary, Terry Kinney, and Jeff Perry founded the Steppenwolf Theatre Company in Chicago. Initially performing in a church basement, the company grew and gained stature in the Chicago area. In addition to acting in many plays, Gary also directed some of Steppenwolf's most notable productions, including Sam Shepard's "True West". The company made its Broadway debut with that production, starring Gary and John Malkovich. Gary's Hollywood career also started in the director's chair with two episodes of the stylish TV series "Crime Story" followed in 1988 by the feature "Miles from Home" starring Richard Gere. Gary's first feature film as an actor was the World War II fable "A Midnight Clear" in 1992. That year also found Gary combining his acting and directing talents with the critically acclaimed "Of Mice and Men". His first real notice by the public came in 1994, however. He starred in the blockbuster miniseries "The Stand", rapidly followed by his bravura performance as Lt. Dan in "Forrest Gump". His portrayal of the disabled, emotionally tortured veteran earned Gary numerous awards and an Oscar nomination. Busy 1994 was followed by busy 1995, first reuniting with Tom Hanks in "Apollo 13" and then starring in the HBO film "Truman" which earned him the Golden Globe and Screen Actors Guild Awards and an Emmy nomination. Gary is married to Moira Harris, an actress and original member of the Steppenwolf Company. They have three children, Sophie, McCanna, and Ella. Gary's father is the film editor Robert L. Sinise, A.C.E.

**Spouse** Moira Harris, 1981-present, 3 children

### Trivia

- His Steppenwolf theater company, started by high-school grads in a Catholic-school basement, is now an institution housed in an \$8 million theater.
- Gary Sinise was born March 17, 1955. In the movie "Apollo 13", Gary Sinise played original Apollo 13 pilot, Ken Mattingly. Ken Mattingly was born March 17, 1936.
- Received his first college degree in 2003 - an honorary degree from Amherst College.

**Biography from Leonard Maltin's Movie Encyclopedia:** A founder of Chicago's famed Steppenwolf Theatre Company, Sinise has begun an impressive film career on both sides of the camera. He made his directing debut with the downbeat rural drama *Miles From Home* (1988, which featured Steppenwolf members John Malkovich and Laurie Metcalf) and appeared as Mother in the acclaimed war drama *A Midnight Clear* (1992), before tackling his most ambitious film project to date: directing and starring in a remake of *Of Mice and Men* (1992) as George, opposite John Malkovich's Lennie (which they'd both performed on stage). He rounded out that busy year costarring with Danny DeVito in *Jack the Bear* (released 1993), then scored a Supporting Oscar nomination as the embittered, legless Army lieutenant in *Forrest Gump* (1994). Sinise also starred in the TV miniseries "The Stand" (1994) and had a small role in *The Quick and the Dead* (1995, as Sharon Stone's father).

*Compiled by Jay Seller, Primary source director's commentary by Ron Howard, DVD version  
Copyright © 2004 by Jay Seller*

*Copyright © 1994 Leonard Maltin, used by arrangement with Signet, a division of Penguin Putnam, Inc.*

## Chapter 9: The New pilot

Jack Swigert passed away in the early 80's thus Kevin Bacon wasn't able to meet the character he was portraying. But the other actors all had this advantage.

### Compare and Contrast

Swigert was an excellent pilot and it was ultimately helpful that he was in the capsule. Swigert was single and women were very interested in him. He was put under a lot of pressure to come in to this situation with just two days prior to launch. This was filmed on location, at NASA in Houston. They were all sworn to secrecy and they were never told what part of the building they could use or where they would be filing in the building, due to all of the top secret projects going on there and still going on there to this day.

**Biography for Kevin Bacon, Date of birth (location)** 8 July 1958, Philadelphia, Pennsylvania, USA, **Height** 5' 11"

**Mini biography** Kevin Bacon's early training as an actor came from The Manning Street debut as the strict Chip Diller in National Lampoon's Animal House (1978) almost seems like an inside joke, but he managed to escape almost unnoticed from that role. Diner (1982) became the turning point after a couple of TV-series and a number of less than memorable movie roles. In a cast of soon to be stars he more than held his end up, and we saw a glimpse of the real lunatic image of The Bacon. **Spouse** First Wife?, second wife Kyra Sedgwick, Sept. 3, 1988-present, 2 children

#### Trivia

- Attended the prestigious Julia Reynolds Masterman Laboratory and Demonstration School in Philadelphia with his brother, Michael.
- Inspired a game called Six Degrees of Kevin Bacon, whereby people have to link any given actor to him by no more than six steps. For instance, to do Fred MacMurray, you could observe that MacMurray worked with Lee Marvin in The Caine Mutiny, which is one step; and Marvin worked with Jane Fonda in Cat Ballou, which is two steps; and Fonda worked with Jack Lemmon in The China Syndrome, which is three steps; and Lemmon worked with Bacon in JFK, which completes the link in four steps. Harder versions of the game exist, limiting the player to five, four or even three steps.
- Attended the Pennsylvania Governor's School for the Arts.

**Biography from Leonard Maltin's Movie Encyclopedia:** No Brat-Packer he, Bacon emerged at the same time as many other youthful performers, but has shown himself to be an actor with serious ambitions-and the talent to back it up. After working on the daytime soaps "The Guiding Light" and "Search for Tomorrow," this slender, boyish actor with impish grin and engaging demeanor appeared in a string of hit movies, including National Lampoon's Animal House (1978, debuting as a slimy ROTC student), Friday the 13th (1980), and Barry Levinson's 1982 comic sleeper, Diner in which he sparkled amid a uniformly excellent ensemble cast. Bacon, who studied at the Manning St. Actor's Theatre and was an apprentice at Circle-in-the-Square in New York, made his off-Broadway debut in "Getting Out," and won an Obie for his performance in "Forty Deuce," playing a teenage hustler (a role he repeated in a lackluster 1982 film adaptation). A starring role in the 1984 film Footloose brought Bacon box-office notoriety (if not critical acclaim), but also marked the beginning of what would become a somewhat uneven adult film career. He went on to star in such oddities as Quicksilver (1986), White Water Summer, End of the Line (both 1987), and She's Having a Baby (1988)-none of them particularly successful. (He also made an amusing cameo appearance in John Hughes' Planes, Trains & Automobiles in 1987.) Bacon had choice parts in two 1989 films, Criminal Law (as a psychopathic, wealthy killer) and The Big Picture (as an award-winning film student sucked into the Hollywood maw), which were little seen in theaters but achieved some success in the home video market. He also raised eyebrows with a finely tuned performance in PBS's "Lemon Sky," for the American Playhouse series, which also introduced him to future wife Kyra Sedgwick (with whom he starred in 1990's abysmal Pyrates OTHER FILMS INCLUDE: 1990: Flatliners, Tremors 1991: Queens Logic, He Said, She Said, JFK 1992: A Few Good Men 1994: The River Wild 1995: Murder in the First, Apollo 13. *Copyright © 1994 Leonard Maltin, used by arrangement with Signet, a division of Penguin Putnam, Inc.*

## Chapter 10: Love on the Runway

This ceremony didn't actually take place for Apollo 13 flight; they do it now for the shuttle astronauts. The rocket is not on the runway that was added later. They borrowed this as it catches the spirit and anticipation of the mission.

The girl in the yellow in the background is Ron Howard's daughter; she likes to be an extra.

## Chapter 11: The Big Day

This is the first shot that Ron Howard saw done by Digital Domain and he said his mouth dropped open. It was so real. Like wise this following shot is not stock footage, it was created

*Compiled by Jay Seller, Primary source director's commentary by Ron Howard, DVD version  
Copyright © 2004 by Jay Seller*

for this movie. The second unit went out at dawn and shot a plate without the rocket there and then Digital Domain people added the rocket in there.

When they heard that they would sand down the skin to place these sensors on the guys, they just had to find a place to put it in the movie. There is an incredible amount of general discomfort that these guys had to endure in their daily work environment. All the things that would bother you and I would bother them too.

This part is about Marilyn losing the ring down the drain is absolutely true, a lot of people thought this was so hokey and over the top, but it did happen. There were so many strange things that they didn't bother to put in. For example, a couple of days before the mission, a sort of fluke accident occurred, where a car was burned up next to the launch pad for no apparent reason. It was kind of a cursed flight.

After Fred Haise saw the movie, he thought it was pretty accurate, but he told Bill Paxton that he never chewed gum.

**Biography for Bill Paxton, Date of birth (location),** 17 May 1955, Fort Worth, TX, **Birth name,** William Paxton, **Nickname** Wild Bill, **Height** 5' 11"

**Mini biography** Bill moved to Los Angeles at 18 where he found work in the film industry as a set dresser for Roger Corman's New World Pictures. He made his film debut in the Corman film *Crazy Mama* (1975) directed by Jonathan Demme. Moving to New York, he studied acting under Stella Adler at New York University. After landing a small role in *Stripes* (1981), Bill found steady work in low-budget films and TV. He also directed, wrote and produced award-winning short films including *Fish Heads* (1982) which aired on "Saturday Night Live" (1975). His first appearance in a James Cameron film was a small role in *Terminator, The* (1984) followed hard by his very memorable performance as Private Hudson in *Aliens* (1986) and as the nomadic vampire Severen in Kathryn Bigelow's *Near Dark* (1987). Bill also appeared in John Hughes' *Weird Science* (1985), as Wyatt's sadistic older brother Chet. Although he continued to work steadily in film and TV, his big break did not come until his lead role in the critically acclaimed film-noir *One False Move* (1992). This quickly led to strong supporting roles as Wyatt Earp's naive younger brother Morgan in *Tombstone* (1993) and as Fred Haise, one of the three astronauts in *Apollo 13* (1995), as well as in James Cameron's offering *True Lies* (1994). **Spouse Louise Newbury, 1987-present, 2 children**

**Trivia**

- Attended Arlington Heights High School in Fort Worth, Texas
- Attended Arlington Heights High School in Fort Worth, Texas. The same high school as John Denver and Lee Harvey Oswald (who left before he graduated).

**Biography from Leonard Maltin's Movie Encyclopedia:**

Energetic actor who has appeared in a number of movies both major and minor, who after 10 years onscreen gained recognition for his performance as Sheriff Dale "Hurricane" Dixon in the "sleeper" *One False Move* (1992). Paxton began as a set dresser on several B movies (starting with Roger Corman's *Big Bad Mama*), then studied acting and earned roles in the low-budget *Mortuary* (1981) and *Night Warning* (1982). He then scored parts in such grade-A fare as *The Lords of Discipline* (1983), *Streets of Fire* and *The Terminator* (both 1984), and received critical notice as the obnoxious brother in *Weird Science* (1985), and as the hysterical soldier Hudson in *Aliens* (1986). Paxton was featured in the vampire film *Near Dark* (1987), as well as *Pass the Ammo* (1988), *Next of Kin* (1989), *Predator 2*, *Navy SEALs* (both 1990), *The Dark Backward* (1991), *Trespass* (1992), *Boxing Helena*, *Indian Summer*, *Tombstone* (all 1993), *True Lies* *Monolith* (both 1994), and *Apollo 13* (1995). He also directed the video for the cult song "Fish Heads." *Copyright © 1994 Leonard Maltin, used by arrangement with Signet, a division of Penguin Putnam, Inc.*

The rocket going by there as the elevator ascends was placed there by Digital Domain. This second shot is a miniature with a helicopter shot done at the actual launch site, with no rocket there. They were allowed to take a helicopter tour around Cape Kennedy for a couple of days to get some of these shots.

Tom Hanks said that this is the one shot he was dying to do since he was about twelve years old, to put the pressure suits on and walk across the gantry.

Jack Swigert said that reality sunk in when they jammed their foot into his shoulders and strapped him in to his chair. Something that had never taken place in the simulators and suddenly he said he knew he was going somewhere.

*Compiled by Jay Seller, Primary source director's commentary by Ron Howard, DVD version  
Copyright © 2004 by Jay Seller*

The actors in Mission Control all spoke to their counter parts with the details of their duties.

### **Chapter 12: Go for Launch**

This is the most dangerous and the most thrilling aspects of a space mission. All of the astronauts they spoke to confirmed this feeling.

### **Chapter 13: The Lift-off**

Marilyn Lovell was an extra in the filming of the launch sequence. Of course the first time they filmed this, there was no rocket there. But they did have some speakers that were close to the audience and they cranked up the launch sounds for them to hear. When the tape was over, Marilyn was in tears. Ron Howard asked her if she was all right and she stated, "Yes, I just didn't think I would ever have to live through that again."

For the audience they pumped into the sound track here some heavy DTs sound with a lot of low end, so that you will feel it in your chest.

Some of the dialog you will hear now is taken straight from the transcript. Apollo 12 had lightning strike it just as it was lifting off. Every mission has a transcript of the entire mission.

These are some of the last shots they filmed on the KC-135 aircraft. They started filming with these guys with six days beards and worked backwards. The actors were worried about these shots, since they were strapped down inside the set, which was inside the KC-135 aircraft.

### **Chapter 14: Proud, Happy and Thrilled**

The wives were trained in terms of media relations, which mean there was this sameness in all of the interviews that they gave. (Side note, key to a successful marriage would be this attitude today by couples.)

### **Chapter 15: The Docking**

Getting the entire computer graphics sorted out was a real challenge. They lost as couple of days filming dealing with the computer graphics and getting all of the bugs sorted out.

He isn't really throwing up, it was vegetable soup concoction that they gave him to spit out. Fred Haise stated that he never did throw up. But the medical records show that he did, so Ron Howard believes he just never wanted to admit it. About 50% of all astronauts experience space sickness.

Most of the wide shots were filmed in the KC-135 aircraft. Then these shots were filmed in the studio. It really helped the actors, as they had already experienced the weightless look and feel. Thus it was much easier for them to create that illusion and act it back on the stage.

### **Chapter 16: A smooth one**

You can see Ron Howard's Brother Clint, who plays the character of Econ.

### **Chapter 17: Day 3, April 13**

This is a model shot to begin with here. This next shot of Tom Hanks was done on the Casey 135. The first time that Ron Howard met Jim Lovell, he stated without a doubt the number one question people have about space travel is, 'How do they go to the bathroom, in outer space?' Ron Howard thought if that was going to be in the backs of people's minds, then they ought to show it.

All of the astronauts got a big kick out of this in Houston, when they showed it to them. So they got it right!

### **Chapter 18: Hello, World**

This was all shot on a blue screen stage and then later they added all of the static. Marilyn said it was all very unsettling to see Jim this way. She continued to be very nervous about the whole situation. The voice of the announcer at the baseball game on the television is the voice of the director, Ron Howard.

Any shot where they needed something to float was done on the KC-135. Ron Howard is in the background here beating himself on the head, trying to do anything to get these kids to laugh here, as they didn't have the benefit of seeing the video portion that we are seeing.

This was the first mission that was not broadcast and the families of the crewmembers, along with the employees at NASA were very upset about it. The older woman with the glasses is Jean Howard, Ron Howard's mother. She has been acting again, for the last eight or nine years, mostly doing television. Ron Howard's dad leaned on him to consider her for the role. He did make her audition three times before he gave her the part. This is also true, the guys in the air did not know that they were not being broadcast, only those on the ground.

A little ad-lib here by Ron Howard's brother Clint here. He did at one time have some trouble with the IRS and I guess you can see it found its way into the performance.

They had a lot of trouble with lighting these shots on the KC-135. In the studio they had all the room they needed for lighting equipment, but on the plane they were limited.

Here is the last shot of Tom and he is pretending to be weightless in this shot.

### **Chapter 19: Houston, We have a problem...**

For these studio shots that give the appearance of weightlessness, they used a long crane, with counter balances. Kind of like a big titter-totter.

In reality it was one big bang, like a car accident. For the movie they kind of suspend time. That is because when they interviewed these guys they all said as they explained the problem they also suspended time, explaining each millisecond.

Copies of the actual transcript and audiotapes of this situation were given to all of the actors and mission control actors, so that they could copy the situation realistically and what each of these

individuals went through. Howard had a copy in his car and every day driving to work for two months he would listen to this tape. Of course it is not exact, but it is really close.

They used everything here from camera with long lenses vibrating, cameras on remote heads floating up and down, there is a head doing a 360 degree turn. They used all of the cinematic tricks they could think of and at the same time bouncing you back and forth from the KC-135 to the studio shot. They had a small camera guy who could fit inside the capsule with these actors and would film some shots for them.

The shot with the model spewing the gas into space was tricky as gas in space doesn't spew out like smoke, thus they couldn't use smoke in the shot. They also had to get that trailing effect that you see.

Dolly Zoom, as Ed Harris is hearing about the venting problem.

**Biography for Ed Harris, Date of birth (location)** 28 November 1950, Englewood, NJ, **Birth name** Edward Allen Harris **Height** 5' 9"  
**Mini biography** By transforming into his characters and pulling the audience in, Ed Harris has earned the reputation as one of the most talented actors of our time. Born in Tenafly, New Jersey, Harris grew up as the middle child. After graduating high school, he attended New York's Columbia University, where he played football. After viewing local theater productions, Harris took a sudden interest in acting. He left Columbia, headed to Oklahoma where his parents were living, and enrolled in the University of Oklahoma's theater department. After graduation, he moved to Los Angeles to find work. He started acting in theater and television guest spots. Harris landed his first leading role in a film in cult-favorite George Romero's *Knightriders* (1981). Two years later, he got his first taste of critical acclaim, playing astronaut John Glenn in *Right Stuff*, *The* (1983). Also that year, he made his New York stage debut in Sam Shepard's "Fool for Love", a performance that earned him an Obie for Outstanding Actor. Harris' career gathered momentum after that. In 2000, he made his debut as a director in the Oscar-winning film *Pollock* (2000). **Spouse** Amy Madigan, 1983-present, 1 child

#### Trivia

- Educated at Columbia University, New York.
- Graduated from Tenafly High School in Tenafly, New Jersey.

**Biography from Leonard Maltin's Movie Encyclopedia:** It's a solid indicator of Ed Harris' range that within one year (1983) he could play the clean-cut astronaut John Glenn in *The Right Stuff* and a coldhearted mercenary in *Under Fire* But this short, powerful leading man, his blond hair usually buzz-cut, is nothing if not unpredictable. He was discovered by George Romero, who starred him as the King Arthur-like motorcyclist who attempts to recreate Camelot on wheels in *Knightriders* (1981), and also cast him as one of the grasping relatives in *Creepshow* (1982). Harris met, courted, and married actress Amy Madigan while working with her in *Places in the Heart* (1984, playing an adulterous brother-in-law) and as a bigoted Texan in *Alamo Bay* (1985). A perfect modern-day Everyman, Harris can carry a picture on his own, but he seems to gravitate toward strong supporting roles. He was a distraught Vietnam vet in *Jacknife* the underwater hero of *The Abyss* (both 1989), an ice-blooded New York Irish mob leader in *State of Grace* (1990), and a beleaguered Southern attorney in *Paris Trout* (1991). In 1992 he riveted audiences with his spellbinding performance as one of the unscrupulous, desperate real-estate salesmen in the allstar screen adaptation of David Mamet's *Glengarry Glen Ross* Recent credits include the TV movie *Running Mates* (1992, opposite Diane Keaton), *Needful Things* (1993, as a sheriff), *China Moon* (1994), *Just Cause* and *Apollo 13* (both 1995). *Copyright © 1994 Leonard Maltin, used by arrangement with Signet, a division of Penguin Putnam, Inc.*

## Chapter 20: Working the Problem

Difficult to show the audience these mission control scenes as it is almost a foreign language being spoken here by the actors. Thus visually they have to make the scene look interesting and also express exactly what is happening. Here is a good example of explaining the difficult words and situations to the movie audience. You really don't know what it means to 'shut down the reactive values to the fuel cells.' But the actors communicate to the audience that it is a drastic measure.

## Chapter 21: We've just lost the moon

Here is an interesting acting situation, with these two powerful actors, Tom Hanks and Ed Harris, in the same scene together, but unable to even talk to each other except through the cap COM.

## Chapter 22: The Lifeboat

**Chapter 23: Fifteen Minutes**

This is their life and death situation. If they don't get the limb powered up they will not live in the capsule. So the situation dictates the action. Look at how they are using long division to solve this suspense sequence.

Here is the actual footage of Dick Cavett, the former host of The Tonight Show, prior to Johnny Carson and Jay Leno.

**Chapter 24: The Special Report**

This is also actual footage, here we are 30+ years later and you can understand the explanation they are giving the American people. A lot of this footage was simply destroyed by the networks. They had to do a lot of digging into the vaults looking for this type of actual footage.

**Chapter 25: Five Minutes****Chapter 26: Something broke**

The astronauts were very much aware that the world was listening and Ron Howard said it was almost bizarre how they tried to protect the public and to mind their manners in this life and death situation. On VOX meant that everyone in mission control could hear them.

Marilyn felt that she was on her own mission and that was an attempt at holding the family together through this entire situation.

**Chapter 27: The Close-out**

Ron Howard visited Houston and was surprised to attend a homecoming reunion of mission control workers. When he meets these individuals, he felt that he needed to change the screenplay to reflect the personalities of each of these guys. The original screenplay made them almost synonymous.

**Chapter 28: The New Mission**

Hear the line, "Bulb burnt out." That is delivered by Ron Howard. He says he likes to deliver a line here and there in his movies, kind of a signature gesture.

This bulb burnt out situation is a perfect analogy. In the day to day life we expect things to break down or quit on us, such as our cars, etc... but here, twenty-five years earlier we were relying on new technology to make things work every time. And when it didn't work, lives were in danger.

This was and is the etiquette to NASA. Outside of the control room screaming matches and heated arguments were allowed. If you look to psychology, there in lays the answer to brainstorming and open discussion techniques. Mind you this is controlled, not a high school classroom discussion.

**Chapter 29: Day 4**

Look in the foreground the broken repair work, taking place on the control panels. Just another cinematic hints that things breakdown.

This is true that Nixon did try to get some odds. Mission Control did not like the odds that they had to give nor did they want to participate in coming up with a figure.

### **Chapter 30: The Dark Side**

That is the moon in the background there. They went to one of the libraries and found actual stills taken from Apollo 15 or 17 of the moon, and then they digitally enhanced them to get a slightly different contrast to the surface. There you have the final results of their work.

Shot on the stage with the actors pretending to be weightless. This is one of the models by Digital Domain. That is not a photograph of the moon, but one of their models.

Jim Lovell stated that the trip around the dark side of the moon was not that big of a deal, there really was nowhere for the spacecraft to go, except around the moon as its gravitational pull worked on the ship. Marilyn, however, said it was an awful time for her. Here is the use of a dioptic (sp) shot here for the deep focus. Marilyn had this squawk box and she spent numerous hours sitting alone listening to hear Jim's voice.

### **Chapter 31: Moonstruck**

Here is a real turning point for the astronauts as they see their landing site on the moon and all of them realize they will not get to walk on the moon, especially hard for Jim Lovell to take. Here is again a real shot of the moon and the reflections on the helmets were added by Digital Domain, really an incredible job. In fact the glass wasn't even on the helmets. This was all shot on the back lot of the studio with Tom Hanks hanging from a wire on a crane. That was it got him a little extra lift and would carry him for a few feet.

Here the story has changed, now it is about the voyage home, a story of survival.

### **Chapter 32: Failure is not an option**

This is another problem that has to be addressed to the audience. 1.) That survival in space was not the only challenge, 2.) That the re-entry into the earth's atmosphere was going to be an even a greater challenge.

### **Chapter 33: The simulator gambit.**

This movie does make it look as if fifty individuals in Mission Control are the ones responsible for saving these guys lives. However, in reality there was close to 5,000 people working in both the private sector and the government sector trying to help the efforts of Mission Control.

They attempted to provide the audience with information that could digest and the coffee pot analogy was one Ron Howard felt the audience would get.

Mattingly is depicted here as the one responsible for getting in the simulators and debugging the problem. But in reality a number of astronauts did this task. He was the one who ultimately provided the most help.

### **Chapter 34: Sir Isaac Newton in the Driver's Seat**

This is one of Ron Howard's favorite shots, as it was accomplished on the sound stage. They positioned the camera at about 90 degrees and Kevin Bacon is on, what is called a belly pan, which is kind of an arm with weights on it. Tom Hanks is also on a belly pan, leaning on his side, Bill is also on one, so they are sort of floating and the camera was framed just perfectly to keep out the visible seats that the actors are perched on. Yet it mimics the Casey 135 shots. They look weightless.

### **Chapter 35: The CO2 Problem**

This is the beginning of a suspense sequence, but first you have to understand what is going on. This actor is Jim Ritz, who was a writer for *Happy Days*. He is a great character actor, who has just another example of a techno nerd, with a pocket protector, who turns out to be another hero.

### **Chapter 36: Marilyn and the media**

Here are some shots of the guys in pre-production. Ron Howard thought that during the crisis scenes, he could use these as flashbacks. The interviews you see the guys doing here were copied from interviews these guys did. They are good as they provide a background and past for the characters.

This reaction by Marilyn to the media is taken directly from Jim Lovell's book.

### **Chapter 37: Day 5**

This was all shot on the sound stage, which they cooled down to about 35 degrees for a two-week period for the filming. They turned the camera and the set to disorient the audience to believe in the weightlessness. If not for the KC-135, they would have had to do all of the filming on the sound stage, with the actors floating around in wire rigs, which would have been awfully painful.

Bill Paxton does a really good job of portraying Haise as a simple guy with kind of a country background, but yet with the smarts and intelligence to make it believable that he is an astronaut. This was really uncomfortable filming, but it was necessary.

Fred Haise described the cold on this ship as like, "Being stuck on a hunting trip, at dawn, when it is its coldest and being stupid enough not to have your jacket." That is based on a real joke. Fred's problem as it turned out later was a urinary tract infection, extremely painful.

### **Chapter 38: Bouncing off the walls**

None of the astronauts would reveal any areas of conflict or that they ever argued in the capsule. It took many months of investigating to uncover any areas of conflict between these men. So the motion picture studio concocts this argument. A little bit of dramatic license, but the source of the material was accurate.

### **Chapter 39: With every breath**

Good examples of the controlled voice the world heard and not the real man in a crisis situation.

This really follows that Yankee ingenuity. That is what America is known for, fixing the problem any way that you have to, using every available resource. This procedure was later analyzed in great length and it turned out to be so good, that they put it in future flight plans as a safety measure. This sequence was ad-libbed and they let the actors communicate the process. The actors had pictures of the actual adapter and they had the original manuscript of the procedure for putting it together. Most of this was filmed on the KC-135.

This shot was an idea from Ron Howard's daughter Bryce. He wanted to use it to remind the audience that they were thousands of miles from home. And this shot had never been attempted before, where they go from the inside of the capsule to space.

This shot with Tom Hanks looking at the CO<sub>2</sub> light was a difficult shot and Tom was in great pain. It was like holding a sit up at about 1/3 of the incline.

### **Chapter 40: My Jimmy can land it**

Again that is Jean, Ron Howard's mother playing this role. At one of the screenings that Ron Howard was attending, his mom's line got applause and Ron Howard said that he was very proud, "It made me feel very good."

### **Chapter 41: A little medical mutiny**

### **Chapter 42: Day 6**

This shot was added to emphasize the greatness of space. As you watch the movie you become somewhat claustrophobic, thus they added this shot to remind you of their insignificance in space.

The frozen hot dog, Ron Howard stated that when he read about the food freezing, that he had to include that detail in the movie, "it was too irresistible."

### **Chapter 43: The Earth in the window**

Another hard concept to relate to the audience is the burning of the engines manually. You can see the system they are using to explain all of the details to the audience. First you hear it from NASA in their terms, then they cut to a news crew or an off-camera discussion which relays the problem in layman's terms, then they would go back to NASA's terminology, which by then they hoped the audience would understand.

The firing of the engines for course correction happened numerous times, they choose to show you the audience only once. The work of the astronauts by themselves is important for us to see, they are working by themselves, without the help of the computers or NASA.

### **Chapter 44: More Power**

### **Chapter 45: To get you home**

Notice how this scene plays out as a love scene, between a husband and a wife.

There is a half dozen other crisis's in the actual transcript that does not appear in this movie. There is a case that where Lovell actually lost his temper and yelled at Mission Control.

### **Chapter 46: Four more amps**

### **Chapter 47: The Power-up procedures**

This façade was built right outside of the stage on the Universal lot. This allows the steady-cam to walk into the building with Gary Sinese.

Mattingly always wore a suit and a tie into Mission Control. Doesn't matter how hard he was working. Ron Howard loved this detail about this character.

“Are the flowers blooming in Houston?” This was taken right out of the transcripts. Means have you got the measles after all?

They used what is called a snorkel cam, which is a camera that has a special lens controlled by a series of mirrors. It allows for working in a very small or tight place. This capsule is as small and as tight as you see it here.

### **Chapter 48: Day 7**

Notice the Omniscient shot here, God's eye. Was there some one watching over the crew at this crucial moment? It almost seemed that there had to have been.

Here we have the Typhoon warning, another detail which is absolutely true, and one of those moments when the audience, simply says that they just can't believe it.

### **Chapter 49: The Damage Done**

The explosion to the panel was amazing for the crew to witness. If that explosion had happened in the earth's atmosphere, it would have blown up the entire ship. They survived only because it happened in the vacuum of space.

### **Chapter 50: The global Drama**

The minister sitting there is Ron Howard's dad. He had a good scene but it was edited out. Ron said that was an awkward conversation. “Dad, you did a good job, but it is on the cutting room floor.”

### **Chapter 51: Farewell, Aquarius**

### **Chapter 52: Aligned for Re-entry**

Ron Howard stated that during this entire drama, when it was unfolding for the American people, he was working in the middle of the dessert on a episode of *Gun Smoke*. Thus he stated that he remembered very little about what happened. In great detail he remembered watching the re-entry. But the whole world was watching the re-entry.

All of the Mission Control sequences were filmed in sequence, which really helped the actors, builds to this splash down sequence. The capsule was also filmed in sequence, thus it allowed for their emotional buildup.

### **Chapter 53: Falling to Earth, April 17, 1970**

Look at all of the great detail by Digital Domain with the fire on the outside of the capsule. Another detail of all of the condensation raining on them as the capsule heated up.

### **Chapter 54: The Waiting**

This was an extremely emotional time for the cast and crew, many of the crew was shedding tears. The capsule as it appears with the open parachutes was a miniature model that was dropped from a helicopter and filmed from the shoreline.

### **Chapter 55: Welcome Home**

This is the first take on Ed Harris, as the capsule comes into view.

This event was a huge collaboration on an emergency rescue; thus the film had to mimic that aspect, by also being a huge collaboration with NASA and everyone else involved.

Ron Howard stated that he has worked on films that were physically draining, but he has never worked on a film that was this emotionally draining. At the rap party, he stated everyone was emotionally drained.

### **Chapter 56: The successful failure**

### **Chapter 57: End Titles**

Ron Howard stated that the cast and crew agreed that no matter what they did in the future, nothing would ever be the same as working on *Apollo 13*.

## **Lost Moon: The Triumph of Apollo 13 (60 minutes)**

Trivia for Apollo 13

- Footage of the Saturn V was computer generated specifically for this film; no Saturn V stock footage was used.
- The cast and crew flew between 500 and 600 parabolic arcs in NASA's KC-135 airplane (nicknamed the "Vomit Comet") to achieve real weightlessness. Each of the arcs got them 23 seconds of zero gravity. All of these flights were completed in 13 days.
- Marilyn Lovell really did lose her ring down the drain but eventually found it again.
- Cameo: [Marilyn Lovell] an extra in the grandstands at the launch.
- Cameo: [Jim Lovell] Captain of the USS Iwo Jima.
- Jim Lovell wore his old navy captain's uniform in the scene where he greets the astronauts aboard the Iwo Jima. When Ron Howard asked Lovell if he'd like to be in the film as the ship's admiral, Lovell agreed but pointed out, "I retired as a captain; a captain I will be."
- Cameo: [Jean Speegle Howard] director Ron Howard's mother plays Blanche Lovell.
- Cameo: [Rance Howard] director Ron Howard's father, playing a priest.
- Zero-Gravity Sequences were filmed at Ellington Field-Houston, TX

- Several actors from the movie including: Tom Hanks, Bill Paxton, Kevin Bacon, and Gary Sinise visited U.S. Space and Rocket Center Space Camp program and worked on their simulators before production of the movie began to help them get a feel for what it would be like to work in zero gravity.
- Though not noted on screen, Marilyn Lovell's "premonition" of an accident on her husband's flight was triggered by her seeing the movie *Marooned* (1969)
- All the screens in the fictional Houston control room were monitored by a software center that was built just below the set. According to director Ron Howard, almost three days of production were lost while trying to fix the software, which wouldn't work properly.
- Kathleen Quinlan's first credited screen appearance was in *American Graffiti* (1973) as Peggy. Her scene consists of her in a bathroom talking to Laurie (Cindy Williams) about forgetting her boyfriend, Steve (Ron Howard).
- In interviews, the real Jim Lovell had said that he thought Kevin Costner looked a little bit like him, but Costner was never cast. When 'Brian Grazier' and Imagine Entertainment got the rights to the script, Ron Howard signed on to direct and knowing that Tom Hanks was an Apollo/space buff, sent the script to him. They set a meeting and Hanks agreed to play Jim Lovell during Hanks' and Howard's first meeting about the film.
- Several items in the movie, including Jim Lovell's (Tom Hanks) jumpsuit and a coffee mug in mission control bear the mission patch for Apollo 8, the mission that took Jim Lovell to the moon for ten orbits a year and a half earlier.
- Jim Lovell is actually left-handed, but Tom Hanks refused to write with his left hand for the movie.
- Cameo: [Gene Kranz] can be seen in the background at Mission Control just before reentry.
- At one point during the return flight there is a bang and nobody is very alarmed; it's just a "burst helium disk." This was actually a significant event, though an expected consequence of the situation. The helium disk served a protective function in the LM descent engine and, after it burst, they might no longer be able to restart that engine. A final course correction, not shown in the movie, had to be done using thrusters instead.
- The role of Fred Haise (Bill Paxton) was first offered to John Cusack but was turned down.
- The movie makes no mention of a mid-course correction made while en route to the moon which took the spacecraft off of a free return trajectory. After the explosion, a second correction was successfully made to put the spacecraft back on a free return trajectory. Without this correction, the astronauts still would have swung around the moon, but would have missed the earth on the return leg. Although a free return trajectory was agreed upon in the movie, the engine burn to accomplish this was not portrayed. The astronauts also made a four-minute engine burn after swinging around the moon to gain additional speed and to enable them to splash down in the Pacific Ocean. There is a brief reference to this in the movie, but this maneuver was not portrayed.
- Cameo (Roger Corman): as one of the tour group Tom Hanks shows the rockets to in the beginning of the movie.
- Lovell (Tom Hanks) is shown using the earth as a visual reference point in order to correct the craft's return trajectory. In actuality, the real Jim Lovell used the sun as a reference point.
- Ron Howard claims that, after seeing the film, Buzz Aldrin asked him if NASA could use the footage of the launch from the movie.
- Lovell's line "I wonder where Guenter went" was made popular by the crew of Apollo 7. Guenter Wendt was NASA's "pad leader" during the Apollo program and was the last man seen by crews before liftoff. After Wendt closed Apollo 7's hatch and his face disappeared from the window, CSM pilot Donn Eisele said, "I wonder where Guenter went." Commander Wally Schirra claims to have stolen the line and made it famous among astronaut crews.

#### Goofs for Apollo 13

- Incorrectly regarded as goofs: The film contains an explicit notice that "certain characters and events have been fictionalized for dramatic purposes", so these changes are not goofs. For instance, the Lovells did not host a party during the Apollo 11 landing; Ken Mattingly was already at Mission Control when the Apollo 13 accident happened, and was not really the person who devised the power-up procedure. There are various other minute contradictions of history and the film is prey to a large number of factual errors due to the large volume of documentary footage/evidence from the actual event. This is not a documentary.

- Factual errors: After the party, Lovell holds his thumb in front the gibbous moon. Then, telling Marilyn where to find "her" mountain, he says the Sea of Tranquility is "where the shadow crosses the white part." The terminator was in fact near the Sea of Tranquility on July 20, 1969, but the moon was less than half full; it's depicted in the scene as gibbous, with the terminator on the other side.
- Factual errors: The seas are the dark parts.
- Factual errors: In Houston the moon set that night at about midnight CDT, while the Apollo 11 astronauts were returning to their Lunar Module; hence it would not be visible after the party at the Lovells'.
- Anachronisms: NASA's "worm" logo was not developed until 1975.
- Anachronisms: A technician is wearing a Rockwell International logo on his coveralls. North American Rockwell became Rockwell International only in 1973 when they acquired Collins Radio.
- Factual errors: The launch tower was on the north side of the Saturn V. If Mattingly was watching from east of the pad near the beach, then he would see it on the right.
- Factual errors: In the launch sequence, we see a countdown that ends with ignition of the first stage engines; we see the Saturn V take off about 20 seconds later, and as Lovell points out, the clock starts counting forward then. In fact the ignition sequence for a Saturn V rocket began 8.9 seconds before liftoff, with the countdown reaching zero at the nominal time of takeoff, not at ignition; the clock would then immediately begin counting upward.
- Revealing mistakes: The downward view toward the rocket rising from the pad shows cars in the parking lots. During an actual launch, the pad was completely evacuated and the lots would have been empty.
- Continuity: Houston confirms that the BPC (Boost Protective Cover) is cleared before it is jettisoned by Lovell.
- Factual errors: Rockets burning hydrogen/oxygen (Saturn V second and third stages), or the hypergolic fuels used on all Service Module and Lunar Module engines and thrusters, have essentially invisible plumes in a vacuum, not the bright white plumes depicted.
- Factual errors: Trans-Lunar Injection (TLI) burns were made parallel to the earth's surface, on the far side of the earth from the moon, not while pointed directly at the moon as shown.
- Anachronisms: In April 1970, Lovell's daughter can be seen holding the Beatles' "Let it Be" album, which wasn't released until May 1970.
- Continuity: Just after the explosion, when Lovell is saying "we've got multiple caution and warnings, Houston," the MET clock (Mission Elapsed Time in hours, minutes, and seconds) is plainly visible reading 091:34:10. When next seen less than a minute later, it has backed up to 056:55:12.
- Factual errors: The actual explosion took place at MET (Mission Elapsed Time) 055:54:53, a full hour before the time shown.
- Continuity: Jules Bergman of ABC News mentions that the Lunar Module's descent engine will be used to abort the mission, before Kranz makes this decision.
- Factual errors: The astronauts are shown looking at Mare Tranquilitatis, then crossing from sunlight into shadow, followed by loss of signal, all within seconds. In fact at loss of signal they had been in the moon's shadow for some time and were nowhere near Mare Tranquilitatis.
- Factual errors: While passing over Tsiolkovsky crater on the moon's far side, the astronauts also speak of sighting Fra Mauro and Mare Imbrium, both nearly halfway around the moon.
- Factual errors: Just after acquisition of signal, Houston tells the astronauts that their speed is "approximately 7,062 feet per second" and their altitude above the moon is 56 nautical miles. That speed is 500 ft/s below lunar escape velocity at that altitude, hence impossible on a free return trajectory. In fact, any free return trajectory symmetrical about the moon-earth line would put them at over 100 nautical miles altitude at acquisition of signal.
- Factual errors: A TV scene at Mission Control shows Houston Astros player Jimmy Wynn hitting a home run on April 13, 1970. The Astros were shut out by the Los Angeles Dodgers 2-0 that day.
- Anachronisms: "Mr. Coffee"-type drip pots weren't in use at the time.
- Continuity: A red ashtray and a paper cup in the control center disappear between shots.
- Anachronisms: The television that Blanch Lovell watches the final splashdown on is a Sharp model that was not made until the late 1980s.
- Anachronisms: In the opening sequence with Apollo 1, the crew uses a black keyboard (Block II). The keyboard on Apollo 1 was white (Block I).

- Continuity: During the re-entry simulation with Swigert, Fred Haise communicates with Houston after they confirmed radio blackout.
- Factual errors: In some cold scenes in the LEM, breath is visible. The warm breath rises, which wouldn't happen in a weightless environment.
- Continuity: When Mattingly goes to bed and takes the phone off the hook, the position of the receiver is different when he is woken up.
- Crew or equipment visible: A bearded crew member is visible in the lower right corner of the screen towards the end of the movie, about the time Jack jettisons the service module.
- Continuity: Before Gene Kranz calls for people to "Listen Up People" in mission control, we see Deke Slayton move from the back row to CAP COM row 3 times.
- Audio/visual unsynchronized: News reporters outside of Lovell's home during landing voices are out of synch with the video (observed on the IMAX version).
- Revealing mistakes: When the astronauts are standing in the moving elevator, the reflection in their helmets is of the stationary elevator.
- Continuity: Just after Swigert begins the power up sequence for the CSM, his "NO" label is clearly visible already taped to the control panel in a close-up shot. However, about two minutes later, as Ken talks Jack through the sequence, there is a shot showing Jack first taping the label to the panel.
- Continuity: In the simulator scene with Swigert, Lovell, and Haise, Lovell states as the scene starts that they are in program 67. But after the simulated "burn up" Lovell states that they were in program 64.
- Continuity: At the end of the film, Gene Kranz sits down in his chair and puts his hand to his head. A few seconds later, in the shot showing Ken Mattingly, Kranz can be seen in the background sitting down again in the same manner.

#### Filming Locations for Apollo 13

- Ambassador Hotel - 3400 Wilshire Boulevard, Los Angeles, California, USA
- Burbank, California, USA
- (Safari Inn Motel)
- Johnson Space Center, Houston, Texas, USA
- Kennedy Space Center, Titusville, Florida, USA
- San Diego, California, USA
- Universal Studios, Universal City, California, USA (studio)