Leader's Guide

APOLLO 13 LEADERSHIP: Down-to-Earth Lessons for You and Your Organization

James A. Lovell, Jr. Commander Apollo 13 Mission

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PREFACE

This guide gives managers and instructors the information they need to use Apollo 13 Leadership: Down-to-Earth Lessons for You and Your Organization as a learning tool for any of several purposes:

- Motivation
- Team Building
- Training
- Education

The Program may be used by a wide range of organizations:

- · Well-established businesses
- New or young businesses
- Governmental organizations
- Not-for-profit institutions

in building an understanding of teamwork, leadership, and crisis management.

The Program is also designed to be used by educational institutions in organizational development and management courses.

Organizations may use the Program on a standalone basis or may integrate it into a larger staff development or training effort.

An organization using **Apollo 13 Leadership** on a standalone basis should consider using the suggestions and exercises in this Guide to supplement the showing of the video to a group.

This Guide begins with an Introduction and Summary (Section 1), briefly describing the Program and the Video.

Section 2 follows with step-by-step advice to assist a manager or trainer in leading a workshop. This will enable a group to develop and apply important lessons concerning leadership, teamwork, and crisis management in an interactive setting.

Section 3 provides several model Worksheets to be used or adapted during a Workshop. A convenient Table of Exercises provides cross references between Sections 2 and 3. A 3 1/2" diskette of this guide is provided in Word for Windows 6.0 to assist trainers in blowing up the worksheets to 8 1/2 x 11 or other convenient size and in providing specific sections for handouts (such as Section 4).

Section 4 includes a brief but comprehensive account of the dramatic Apollo 13 Mission and is intended to provide a complete context to help the leader and participant understand the significance of the many incidents and decisions to which Jim Lovell refers during the Video.

The Appendix includes additional resources to assist an organization in developing a broader training, planning, or action program.

Apollo 13 Leadership: Down-to-Earth Lessons for You and Your Organization is not a short cut to building teamwork, establishing strong leadership, or handling a crisis. It is one tool intended to be used with others in building more flexible and effective organizations. Jim Lovell's experience and thoughts can be taken to heart by both managers and team members in a broad range of organizations. The Video does not provide answers, but it may help organizations to find them on their own.

This Guide provides detailed information about other tools which can be used along with this Program. The annotated bibliography in the Appendix suggests other resources to be used by an organization which desires to pursue the issues addressed here in greater depth.

Section 1: Introduction and Summary Introduction

Thanks to the acclaimed motion picture, **Apollo 13**, even those too young to remember the actual events know that the story of the ill-starred mission to the Moon is filled with drama, danger, and heroism.

Yet there is more to the story. The Apollo 13 Mission also provides important lessons in leadership, teamwork, and crisis management.

This Video Training Program will help an organization draw important lessons from the events of 1970 to improve its ability to handle crises—including crises far less dramatic but far more likely than those faced by the Apollo 13 astronauts and their ground support team.

This Leader's Guide will help the manager or trainer to use this Program by itself or in connection with other resources to conduct a Workshop.

Summary of the Video

On April 13, 1970, an explosion crippled the Apollo 13 spacecraft as it was on the way to the Moon. Survival of the three astronauts was very much in doubt until splashdown four days later. The story of the Mission is summarized in Section 4 of this Guide and is told in greater detail in other resources mentioned in the next Section and the Appendix.

In this Video Captain Jim Lovell, commander of the Mission, and Dr. James Belasco, professor of management, reveal important lessons from Apollo 13 in a series of dialogues as well as excerpts from their leadership seminar.

The Video is divided into five sections: VISION VALUES TEAMWORK ACCOUNTABILITY STANDING TALL IN A CRISIS

Taken together they provide important lessons in leadership.

Section 2: Leading a Workshop

Training Strategy

This Program is designed for facilitation by inexperienced trainers as well as professionals. This Leader's Guide provides step-by-step instructions for you to conduct stimulating, interactive and productive learning sessions with a wide variety of audiences.

The Video is designed for use in a motivational and training program involving key members of an organization or team.

- The Video creates a powerful effect when it is shown without stopping in one sitting.
- Or the Video may be shown in segments interspersed with discussion and Workshop Exercises.

This Section suggests Exercises and topics for discussion which may be employed after viewing the Video or at several points during the Video program. These Exercises may be customized and both Video and Exercises may be integrated into larger programs or supplemented with additional readings and videos. A typical Workshop will require 1 1/2 to 3 hours.

Before You Begin

Please view the complete video before leading this program. Please also read this entire Leader's Guide and determine what additional materials, such as Exercise handouts, you may need.

Audience: Select a group which already works as a team or which may need to work as a team in a crisis. It is best to bring together either people of a similar level across a horizontal organization or people from different levels within a single department or business line.

Learning Materials: Have the following materials at hand:

- VHS-format VCR and television monitor or video projector & projection screen (for large groups)
- Video: Apollo 13 Leadership: Down-to-Earth Lessons for You and Your Organization
- Additional videos, if any
- Flipchart (You may wish to prepare titles and matrices on Flipchart pages in advance of the session; see each of the Discussion topics in the suggested Agenda, below.)
- Exercise handouts, if any (See Section 3 for examples). You may want to change the size of the handouts using the 3 1/2" floppy disk provided.
- Paper, pencils, and an assortment of colored pencils for participants

About this Leader's Guide. This Leader's Guide is designed to help you lead a Workshop step by step and fully timed. All activities are designated by a written intruction to make it easy for the leader to

learn the material and present it without intensive preparation.

Optimum Room Setup for all programs is U-shaped to encourage dialogue and active participation. The Flipchart should be to one side of the front of the class, while the TV or projection screen should be set up on the other side.

Suggested Workshop Agenda

Leader Lecture

Introduction and Icebreaker: Background concerning the Apollo 13 Mission. Summarize the story of the Apollo 13 Mission by using the description in Section 4 of this Guide. A full understanding of the nature of the Mission and the challenges faced and surmounted by the participants is helpful (but not mandatory) in understanding the stories told by Jim Lovell and the points made by him and Dr. Belasco.

Video. Start the Apollo 13 Leadership Video. Run it until the conclusion of the discussion of "VISION." Stop the Video when Lovell finishes discussion of his personal vision and says, "It's really a lot of people working together." (Elapsed time: 6 minutes, 20 seconds)

Key Points:

- An organization's vision must be articulated by the leader and shared by the members.
- It should be developed participatively.
- It must reflect not only the best interest of the organization but also the needs of its members.

Exercise 1--VISION: Take five minutes for each participant to record on paper his or her

understanding of the organization's vision and then her or his own vision. Use any combination of words, pictures, numbers, or symbols.

Discussion. Lead the group in a discussion of the points made in the Video and of their responses to the Exercise. Record various definitions of the organization's vision on one page of the flip chart and of participants' personal visions on another page. Look for opportunities to derive one or more of these key points from the discussion:

Key Point:

Vision appeals to the heart, not the mind or the pocketbook

An ideal vision for an organization needs to be:

- Clear and concise
- Focused on getting and keeping customers
- Inspirational
- Shared by everyone
- Put together participatively
- Used as a guide to action

Key Point:

A single unifying vision can unite all of an organization's sub-units and enable it to make a difference for its members and in the world.

Video. Restart the Apollo 13 Leadership Video. Run it until the conclusion of the discussion of "VALUES." Stop the Video after Lovell relates Dr. von Braun's story about the mouse in the nose cone. (Elapsed time: 12 minutes, 55 seconds)

Key Point:

Values, like vision, should be articulated and shared by an organization and adopted and accepted by its members.

Exercise 2--VALUES: Take five minutes for each participant to record on paper his or her understanding of the organization's values and then her or his own values. Use any combination of words, pictures, numbers, or symbols.

Discussion. Lead the group in a discussion of the points made in the Video and of their responses to the Exercise. Record various definitions of the organization's values on one page of the flip chart and of participants' personal values on another page. Look for opportunities to derive these key points from the discussion:

Key Points:

Values are:

- Fundamental beliefs which guide how we deal with others inside and outside the organization
- Belief in what is right and wrong
- A code of desirable behavior
- Things which cannot be bought or sold

Video. Restart the Apollo 13 Leadership Video. Run it until the conclusion of the discussion of "TEAMWORK." Stop the Video after Lovell talks about the ground crew and says, "Once you make a decision, everybody has to concur and agree that that's the way to go and work towards that solution." (Elapsed time: 21 minutes, 10 seconds)

Key Point:

Teamwork, to be available day to day and during a crisis, requires shared vision and values. But, that is not enough. Team members must have experience working together, training together, and planning.

Exercise 3--TEAMWORK: Take ten minutes for each participant to complete a facsimile of the Worksheet. A model for the Worksheet appears in Section 3 on page 17. Customize it as appropriate to fit your organization's nature and needs, the responsibilities of the participants and the specific objectives of your Workshop.

Discussion. Lead the group in a discussion of both the Video and the Exercise. Ask them to compare the teamwork which exists in your organization with that demonstrated by the Apollo 13 team. Then record answers to each of the five questions in Worksheet 3 on a separate page of the Flipchart.

- What are the few most important contributions my group must make to create success for our customers?
- What are our most important interdependencies and what must our partners contribute?
- What are the best methods for measuring both our contributions and those of our partners?
- What are the few most important contributions I make to help my team create success for our customers?
- What are the best methods for measuring my personal contributions?

Look for opportunities to derive these key points from the discussion:

Key Points:

- Teamwork is built through shared special events and play activities as well as shared tasks.
- Teamwork often results in a shared culture, shared legends, shared jargon, and shared heroes.

Video. Restart the Apollo 13 Leadership Video. Run it until the conclusion of the discussion of "ACCOUNTABILITY." Stop the Video after Lovell discusses the value of the specialized knowledge of individual crew members and says, "along with that great team on the ground who gave us solutions to crises as they came up one by one." (Elapsed time: 23 minutes, 10 seconds)

Key Point:

Accountability is the fourth and last essential element in preparing an organization for effective operation, optimal development, and for weathering unanticipated crises.

Three key elements of a culture of accountability:

- Clear objectives to implement the organization's vision, defined where possible by agreements within the organization.
- Measurement of performance, both financially and in terms of customer satisfaction.
- Rewards based on satisfaction of objectives and benchmarks established by the participants.

Exercise 5--ACCOUNTABILITY: Take ten minutes for each participant to complete a facsimile of the Worksheet. A model for the Worksheet appears in Section 3 on page 18. Customize it as appropriate to fit your organization's nature and needs.

Discussion. Lead the group in a discussion of the Exercise. Record on a single page of the Flipchart consensus definitions of objectives, measurement procedures, and reward mechanisms. Then on a separate sheet list suggestions derived from the exercise about how objectives, measurement, and rewards might be improved.

The specific questions are:

- What are the articulated objectives intended to implement your organization's vision (including those defined by internal agreements)?
- Should they be modified? How?
- How is performance relative to those objectives measured (financially, customer satisfaction, market share, etc.)?
- How should the measurements be modified?
 What new measuring techniques should be added?
- What rewards are now in place based upon satisfaction of objectives and benchmarks?
- How should those reward procedures be modified or supplemented?

Video. Restart the Apollo 13 Leadership Video. Run it through the discussion of "STANDING TALL IN A CRISIS" to the end. (Elapsed time: 30 minutes)

Key Point.

All of the elements analyzed so far-VISION, VALUES, TEAMWORK, and ACCOUNTABILITY-will help to prepare and position an organization to handle a

crisis, but more is required. An organization should brainstorm and practice specifically to prepare for crises. The exercise will make even a crisis that is completely unanticipated in form easier to manage.

Exercise 6--STANDING TALL IN A CRISIS: Take ten minutes for each participant to complete a facsimile of the Worksheet. A model for the Worksheet appears in Section 3 on page 19.

Discussion. Lead the group in a discussion of the Exercise. Create a matrix on a Flipchart page similar to that in the Exercise. Record candidate types of crisis in each of the four cells. Have the group choose two or three types of crisis for further discussion. The choice might be based upon probability, difficulty, or the organizational challenge which would result.

Encourage the participants to identify actual past or potential future crises in your organization. Examples include:

- Significant shortfalls in profits, sales or other budgeted items.
- A serious accident or natural disaster involving major human or property loss.
- Loss, unavailability or reassignment of vital personnel.
- Late delivery of inventory of raw materials, lost shipments or production delays, whether due to natural disasters or human error.
- A major initiative by an existing or new competitor.

- Pressure from a source of financing, such as revocation of a line of credit, or failure of an underwriting.
- A hostile takeover attempt or bearhug.

During this discussion introduce the Exercise 5A Worksheet (See page 20 in Section 3), the Resolution Methods matrix. Discuss whether the preferred resolution methods seem to fit the crises your group has chosen to consider.

You may wish to introduce some specific strategies for the types of crises your group is considering. See the Exercise 5B Worksheet on page 21 in Section 3.

Leader Lecture. Bring your crisis team successfully and safely back to Earth. Discuss next steps if your organization intends to proceed to more specific crisis planning or role playing. You may wish to close the session by quoting Steve Fink in Crisis Management: "View and plan for the inevitability of a crisis in much the same way you view and plan for the inevitability of death and taxes."

Section 3: Optional Exercises for Use to Supplement the Video

Depending upon your organization's specific objectives and the amount of time available, you may wish to use any or all of these Exercises during a training or discussion session based on the Apollo 13 Leadership Video.

In Section 2, above, a point of insertion in the Program is suggested for each Exercise. The Table of Exercises at page 1 will help the group leader to move back and forth between Section 2 and Section 3 in planning for a Program session.

You may produce an unlimited number of copies of these Exercises for internal use by your organization. You may photocopy the Exercises in their current size or enlarged. You may produce facsimiles in any size. You should modify the Exercises to meet your specific needs.

Specific Exercises

Exercises 1, 2 and 3 are intended to warm up the group by stimulating and focusing discussions of VISION and VALUES. No format is provided here for them; your participants can use plain paper. Separate Worksheets are provided on the following pages for the remaining Exercises which can be modified as you see fit. These Exercise Worksheets are also included on your disk where they are easiest to change in size and shape to fit your needs.

Exercise 3 Worksheet

Teamwork

What are the few most important contributions my group must make to create success for our customers?	What are our most important interdependencies and what must our partners contribute?	What are the best methods for measuring both our contributions and those of our partners?	What are the few most important contributions I make to help my team create success for our customers	What are the best methods for measuring my personal contributions?

Exercise 4 Worksheet

Accountability

	What are the articulated objectives intended to implement the vision (including those defined by internal agreements)?	How is performance relative to those objectives measured (financially. customer satisfaction, market share, etc.)?	What rewards are now in placed based upon satisfaction of objectives and benchmarks?
What is the current answer for the organization?			
What should the organization do differently?			

Exercise 5 Worksheet

Standing Tall in a Crisis

Place each of several crises your organization may face in one of the four cells of this matrix

	Very little time to respond after crisis is revealed (minutes or hours)	More time to respond after crisis is revealed (weeks or months)
Ability to anticipate is high		
Ability to anticipate is low		

Exercise 5A Worksheet

Resolutions Matrix

	Attociatione	
	Very little time to respond after crisis is revealed (minutes or	More time to respond after crisis is revealed (weeks or months)
	hours)	revealed (weeks of months)
Ability to anticipate is high	READINESS	EMPOWERMENT
Ability to anticipate is low	ADAPTABILITY	PLANNING

Exercise 5B Worksheet

Reactions Matrix

Troubtions matrix			
	Very little time to respond after	More time to respond after crisis is	
	crisis is revealed (minutes or	revealed (weeks or months)	
	hours)		
Ability to	Identify prime risks	Assign responsibility for	
anticipate is	Clarify expected behavior	performance	
high	3. Develop/distribute disaster plan	2. Increase customer orientation	
	4. Rehearse	Increase accountability	
	5. Test communications systems	4. Train to improve skills	
Ability to	1. Make quick decisions	Keep an outward focus	
anticipate is	2. Involve experts	2. Keep an open mind	
low	3. Use one spokesperson/full	3. Launch multiple efforts/evaluate	
	disclosure	early	
	4. Keep Vision/Values uppermost	4. Keep bets small	

Section 4: The Story of the Apollo 13 Mission—Leadership and Teamwork in a True Crisis

In the turbulent Spring of 1970 the world was focused on the Cold War rivalry among the United States, the Soviet Union, and China. And the U.S. itself was dominated by the internal debate about the war in Vietnam.

Then, in an instant, people worldwide stopped what they were doing and focused on their television and radios---riveted by five words beamed from a point between the Earth and the Moon:

"Houston, we have a problem!"

Thus began one of the most dramatic episodes in the history of human exploration. Three men in a crippled space ship were in grave danger. The world held its collective breath through four days of recurring crises, heroic efforts, and unrelieved uncertainty, until the astronauts were safe on a carrier deck in the Pacific. This was NASA's finest hour, as well as a watershed event for the broadcast industry---able to carry the story live and in real time.

The millions who have seen the recent Academy Award-winning motion picture know that the story was far more than one of adventure: it was a remarkable example of leadership and teamwork in the face of unanticipated crisis.

This is the story of the Apollo 13 Mission as a lesson in leadership.

The Apollo Program grew out of President Kennedy's commitment to place a man on the Moon by the end

of the 1960's. The complexity of the missions and the size of the payloads were far greater than in the previous Mercury and Gemini programs.

Among the purposes of the Apollo Program were to conduct scientific experiments, to advance aerospace technology, and to beat the Soviets to the Moon.

The program achieved all of its objectives in spite of an inauspicious start.

 A fire triggered by the oxygen tanks in the Apollo 1 Service Module killed astronauts Gus Grissom, Ed White and Roger Chaffee on the launchpad on January 27, 1967.

After this enormous setback NASA got the Program back on track with a series of progressively more complex missions.

- The next Mission, Apollo 7 on October 11-12, 1968 put Wally Schirra, Donn Eisele, and Walt Cunningham in Earth orbit in the Command Module-Service Module combination.
- Between December 21 and 27, 1968, Frank Borman, Jim Lovell and Bill Anders in Apollo 8 became the first persons to reach the Moon and to establish a lunar orbit.

The Program proceeded quickly from this point.

- Apollo 9, manned by Jim McDivitt, David Scott and Rusty Schweickart, carried the Lunar Module into Earth orbit for the first time and docked it with the Command Module on March 3-13, 1969
- Apollo 10 astronauts Tom Stafford and Gene Cernan flew the Lunar Module into a low lunar

orbit, then ascended to rejoin John Young in the Command Module between May 18 and 26, 1969.

 On July 10, 1969, Neil Armstrong made "one small step" onto the lunar surface as the Apollo 11 commander with Michael Collins and Buzz Aldrin as crew members.

The Program's pace slowed after this stunning success and the fulfillment of Kennedy's commitment.

 The Apollo 12 Mission, between November 14 and 24, 1969 achieved the second Moon landing carrying Pete Conrad, Dick Gordon and Alan Beam.

The next scheduled mission was Apollo 13. It would explore more challenging terrain than its predecessors and would emphasize scientific experiments. Jim Lovell would be the commander and the first to fly in two Apollo missions. Jack Swigert (a last-minute substitute for Ken Mattingly) and Fred Haise would round out the crew. The rest of the Apollo 13 story appears below.

During 1971 and 1972 there were four more successful Apollo Moon landings.

In the final Apollo Mission, July 15-24, 1975, Tom Stafford, Deke Slayton and Vance Brand docked successfully with the Soyuz spacecraft in Earth orbit.

The III-Fated Mission

Each mission was a little more complex than its predecessor. By the time of Apollo 13 the mission involved a series of intricate procedures and an astonishing array of equipment.

The first two stages of a Saturn V rocket would lift the third stage and the payload—the command and service modules—into Earth orbit. Shortly thereafter the third stage motors would be fired to send the entire package toward the Moon. Early in the passage to the Moon, the Command Module with Service Module attached would separate from the now spent rocket, turn and dock with the Lunar Module, until now housed within the rocket casing. After successful docking, the Command Module would pull the Lunar Module away from the rocket.

This extraordinary vehicle would complete the passage of almost 250,000 miles to the Moon and settle into a lunar orbit. With one crew member remaining in orbit in the Command Module, two crew members would enter the Lunar Module, detach it from the Command Module, and pilot it to a landing at a predetermined site on the lunar surface. Compared to the Command Module which was built to withstand the heat of reentry into the Earth's atmosphere, the Lunar Module was a flimsy, lightweight affair, built to make just one round trip to the lunar surface. The complete absence of any atmosphere and the Moon's weak gravity made a gentle arrival and departure possible. After completing a series of explorations and experiments, the two astronauts would lift off from the lunar surface in the Ascent Stage of the Lunar Module, leaving the spider-like Descent stage behind.

The Ascent Stage would redock with the Command Module and the lunar visitors would reenter it. Then the Command Module would jettison the Ascent Stage and fire its engines to establish a course back to earth and reentry.

Throughout this process the Command Module would remain attached to the larger Service Module. It holds virtually all of the fuel and oxygen along with a primary rocket engine and smaller thruster engines for delicate adjustments. By itself, the Command Module could neither control its motion, other than by adjusting its attitude nor sustain life for more than a short period.

Like most earlier manned space missions and unlike later Space Shuttle missions, Apollo 13 was staffed entirely by experienced test pilots—reflecting a process which was still far from automated and the belief that a skilled, experienced, and highly trained flight crew would probably be necessary to assure safety and to achieve success.

Navy Captain Jim Lovell was on his fourth space flight and had already logged more time in space than any other human. Fred Haise and Jack Swigert were both first timers and both military-trained civilian test pilots. Supporting them were primitive on-board computers and a large, experienced staff at NASA headquarters in Houston. The public had already begun to think such flights routine.

Routine this flight would not be. Two days after liftoff, when the spacecraft with Lunar Module attached was almost three quarters of the way to the Moon, one of two oxygen tanks in the Service Module exploded, tearing off one entire side of the Service Module and causing a rapid and irreparable leak in the other oxygen tank.

There would be enough oxygen to breathe for only two hours. The ship's electrical system powered by batteries once the fuel cells were deprived of oxygen, would have lasted a few hours longer. The Service

Module had been converted in a flash from a lifeline to a dead weight.

However, Apollo 13 had a Lunar Module with separate oxygen supplies and separate propulsion systems. It would become their lifeboat.

The first vital decision, made by the test pilots on board before their ground support had grasped the gravity of the situation, was to shut down the Command Module and move through the connecting tunnel into the Lunar Module. They did not even try to calculate at the moment whether the Lunar Module's meager supply of oxygen could sustain all three of them for four days; there was no other choice. They had to act immediately to shut down the Command Module in order to preserve enough battery capacity to operate its controls during final reentry. They could not abandon the Command Module entirely, because it had the only heat shield.

The following four days contained many remarkable examples of leadership, teamwork, and crisis management:

- Lovell transferring the guidance software from the Command Module computer to the Lunar Module computer—an operation which had not been planned or trained for—in a very short time.
- Houston recalculating the trajectory necessary to achieve the slingshot effect around the Moon and then adding an extra burn to increase speed and cut eight hours off the return flight.
- Lovell figuring out how to fly the Command Module-Lunar Module combination with the Lunar Module engines—another unanticipated and unplanned operation.
- Houston devising and instructing the astronauts in building an impromptu air filter mechanism

- which saved them from a potentially deadly build up of carbon dioxide.
- Houston devising and testing new reentry control procedures necessary to operate within the limited capability of the weakened batteries. This was possible only because seasoned astronauts who understood the situation were available on the ground, astronauts who were not hampered by exhaustion, discomfort and carbon dioxide poisoning.

Once things had gone badly wrong, absolutely everything else had to go right. Quick and decisive action and seamless cooperation within a diverse and far-flung team were both essential. And, even though the actual crisis was completely unanticipated, the extensive contingency planning and role playing in the training of the flight crew and ground controllers was probably decisive.

Few organizations and fewer individuals will ever face a crisis so immediate or intense. Even so, there are important lessons which the Apollo 13 team and Jim Lovell can impart which can serve organizations well when their own crises occur—or even when they do not.

APPENDIX

BIOGRAPHIES

Captain James A. Lovell

Jim Lovell graduated from the U. S. Naval Academy and served as a pilot, before joining NASA with the second class of astronauts. In 11 years with NASA he made four space flights, including the Apollo 13 Mission, which he commanded. In 1968 he and the other crew members of Apollo 8 were named Time Magazine "Men of the Year."

Since retiring from the service, he attended the Harvard Business School Advanced Management Program and rose to become Executive Vice-President of a large independent telephone company. He is an author and frequent speaker.

James A. Belasco, Ph.D.

Dr. Belasco is an internationally known author, consultant, educator and coach. Best known for his work in the areas of change management and empowerment and his best selling books **FLIGHT OF THE BUFFALO** and **TEACHING THE ELEPHANT TO DANCE**. He is Professor of Management at San Diego State University and has been chosen "Outstanding Professor" five times.

He is also owner and CEO of two companies including one in the specialty chemical business as well as a multi-billion dollar software and service organization. As a consultant he has coached executives in such organizations as Royal Dutch Shell, IBM, McDonnell Douglas, Motorola, Home Federal, Purina, Merck and Heineken Beer.

SUPPLEMENTARY RESOURCES Print

Lovell and Kluger **APOLLO 13** Simon & Schuster (previously titled **LOST MOON** Houghton Mifflin), 1994

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Lewis **THE VOYAGES OF APOLLO** The New York Times Book Co., 1974

Belasco **TEACHING THE ELEPHANT TO DANCE** Crown Publishers, 1990

Belasco & Stayer **FLIGHT OF THE BUFFALO** Warner Books Inc., 1993

Stayer HOW I LEARNED TO LET MY WORKERS LEAD Harvard Business Review, Nov-Dec 1990

VIDEO

TEACHING THE ELEPHANT TO DANCE...TODAY featuring James A. Belasco, Ph.D. Media Alliance, Ltd. Bannockburn, IL, 1995

FLIGHT OF THE BUFFALO featuring James A. Belasco, Ph.D., corVision Media, Inc., Buffalo Grove. IL, 1994

AMERICA3:The Power to Create, Enterprise Media, Cambridge MA, 1993

DO RIGHT I & II featuring Lou Holtz, Washington Productions

GROUPTHINK, CRM Films, Carlsbad, CA

SUMARINE SYNDROME, featuring Ken Blanchard, CRM Films, Carlsbad, CA

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TEAMWORK WITH PAT RILEY, America Media Incorporated, Des Moines, IA, 1988

SCENARIO THINKING, Videolearning Resource Group, Bryn Mawr, PA, 1994

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Note: All Videos available from Media Alliance and listed in Media Alliance's **Trainer's Gold** CD-ROM