Appendix 1 - Final Presentation
A Guide to Strategic Planning
for the Inland Barge and Towing Industry

CONTRACT NO. DTMA91-83-C-30063
REPORT NO. MA-RD-770-85006

U.S. Department of Transportation
Maritime Administration
DECEMBER 1984
LEGAL NOTICE

This report was prepared as an account of government-sponsored work. Neither the United States, nor the Maritime Administration, nor any person acting on behalf of the Maritime Administration (A) makes any warranty or representation, expressed or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately owned rights; or (B) assumes any liabilities with respect to the use of or for damages resulting from the use of any information, apparatus, method, or process disclosed in this report. As used in the above, "persons acting on the behalf of the Maritime Administration" includes any employee or contractor of the Maritime Administration to the extent that such employee or contractor prepares, handles, or distributes, or provides access to any information pursuant to his employment or contract with the Maritime Administration.
Appendix I - Final Presentation
A Guide to Strategic Planning
for the Inland Barge and Towing Industry

CONTRACT NO. DTMA91-83-C-30063
REPORT NO. MA-RD-770-85006

U.S. Department of Transportation
Maritime Administration

DECEMBER 1984
CONTENTS

I. STRATEGIC PLANNING FOR INLAND WATERWAY OPERATIONS

II. INLAND BARGE AND TOWING INDUSTRY FORECASTS

III. THE STRATEGIC PLANNING PROCESS FOR THE INLAND BARGE AND TOWING INDUSTRY

IV. IMPLEMENTING THE STRATEGIC PLANNING PROCESS

Accession For
MTIS GRAI
DTIC TAB
Unannounced
Justification

By
Distribution/
Availability Codes
Avail and/or
Dist
Special

A-1
FOREWORD

UNDER THE SPONSORSHIP OF THE UNITED STATES MARITIME ADMINISTRATION, DRAVO-MECHLING CORPORATION AND TEMPLE, BARKER & SLOANE, INC., HAVE DEVELOPED A METHODOLOGY FOR STRATEGIC PLANNING THAT HAS BEEN SPECIFICALLY DESIGNED TO MEET THE NEEDS OF THE INLAND BARGE AND TOWING OPERATOR.

A COMPLETE DESCRIPTION OF THE STRATEGIC PLANNING PROCESS, INCLUDING THE MARKET ANALYSIS, IS FOUND IN THE PRIMARY DOCUMENT: A GUIDE TO STRATEGIC PLANNING FOR THE INLAND BARGE AND TOWING INDUSTRY.


THE INFORMATION IN THIS EXECUTIVE SUMMARY IS PRESENTED IN THE FORMAT OF SLIDE PRESENTATIONS THAT WERE USED AT THE TRANSPORTATION RESEARCH BOARD/AMERICAN WATERWAYS OPERATORS, INC. JOINTLY-SPONSORED CONFERENCE IN NEW ORLEANS ON AUGUST 13, 1984.
STRATEGIC PLANNING FOR INLAND WATERWAY OPERATIONS

L. S. SUTTON

TRB/AWO MIDYEAR MEETING

AUGUST 13, 1984

DRAVO MECHLING CORPORATION

TEMPLE, BARKER & SLOANE, INC.
GOOD AFTERNOON.

DRAVO MECHLING AND TEMPLE, BARKER & SLOANE WITH THE ASSISTANCE OF THE MARITIME ADMINISTRATION HAVE DEVELOPED A STRATEGIC PLANNING SYSTEM FOR THE INLAND WATERWAYS. WE WILL DESCRIBE THE SYSTEM FOR YOU THIS AFTERNOON IN FOUR PARTS.

FIRST, I WILL GIVE YOU AN OVERVIEW OF THE PROJECT. BRENT DIBNER OF TBS WILL TALK IN DETAIL ABOUT THE FORECASTS WE DEVELOPED AND SOME IMPLICATIONS THEY HOLD FOR THE INDUSTRY.

BERNIE JACOBSON, ALSO OF TBS, WILL THOROUGHLY COVER THE PLANNING PROCESS, I.E., THE STEPS THAT ARE NECESSARY TO GET THE JOB DONE AND FINALLY, I WILL COME BACK AND TELL YOU HOW IT WORKED FOR US INCLUDING SOME DETAILS ON HOW WE DID IT.
THE CURRENT SITUATION

Inland transportation industry no longer financially healthy or growing
Market environment dramatically altered
Leading carriers suffering losses
Other carriers’ profits declining
Regulatory and intermodal environment changing rapidly and profoundly
THIS INDUSTRY HAD BEEN A GROWING, RELATIVELY STABLE SEGMENT OF BULK MARINE TRANSPORTATION. MOST OF ITS TRAFFIC IS FREE FROM ECONOMIC REGULATION.

THE CURRENT DEPRESSION IN EQUIPMENT UTILIZATION AND CARRIER PROFITABILITY HAS RESULTED IN BANKRUPTCIES, MERGERS, AND ACQUISITIONS AND HAS ALTERED CUSTOMERS' RELATIONSHIPS WITH THE FOR-HIRE CARRIERS.
MANAGING IN OUR BUSINESS HAD BEEN TOO EASY. USING 1968 AS AN INDEX, BARGE SUPPLY TRACKED DEMAND ALMOST EXACTLY. SURE YOU GOT SOME MINOR VARIATIONS BUT THEY WERE ALWAYS CORRECTED BY THE NATURAL ACTION IN THE MARKETPLACE.

WHEN YOU ADD TO THIS ALMOST PERFECT MATCH, THE FACT THAT A WELL-MAINTAINED BARGE COULD ALWAYS BE SOLD FOR ITS ORIGINAL COST, YOU KNEW THAT THIS RELATIONSHIP COULDN'T CONTINUE FOREVER. AS A RESULT OF THE OVERCAPACITY CREATED BY THESE TRENDS, SPOT RATES HAVE BEEN REDUCED TO VARIABLE COST LEVELS OR BELOW.
THE IMMEDIATE FUTURE

Retained earnings and "credit" running out

Bankruptcies imminent

Capacity re-entering market under new management at lower capital costs
OUR SITUATION TODAY IS CRITICAL; CAPACITY IS NOW BEING REORGANIZED AS SOME COMPANIES GO OUT OF BUSINESS. UNFORTUNATELY, THE EQUIPMENT DOES NOT GO AWAY BUT IS PASSED TO OTHER OPERATORS AT LOWER COSTS, PUTTING FURTHER DOWNWARD PRESSURE ON SURVIVING OPERATORS. THIS COMBINATION OF INDUSTRY OVERSUPPLY AND MARKET UNCERTAINTIES POINTS TO THE NEED FOR STRATEGIC PLANNING.

OUR SYSTEM PROVIDES THE TWO ESSENTIALS OF SUCCESSFUL STRATEGIC PLANNING--A PROCESS FOR UNDERSTANDING THE DYNAMICS OF OUR BUSINESS AND KEY INFORMATION ABOUT THE STATUS AND OUTLOOK FOR THE INDUSTRY.

THE USE OF PLANNING, PARTICULARLY STRATEGIC PLANNING, BY MOST COMPANIES IN THE INLAND BARGE INDUSTRY HAS BEEN ALMOST NONEXISTENT. PLANNING DIDN'T SEEM NECESSARY WHEN PROFITS WERE CONSISTENT AND GROWING. SOME BARGE COMPANIES DID SOME PLANNING, BUT USUALLY AS A PART OF THEIR ANNUAL BUDGET PROCESS OR TO JUSTIFY THE PURCHASE OF NEW EQUIPMENT OR AS A ONE-TIME EFFORT IMPOSED BY CORPORATE MANAGEMENT.
INLAND BARGE INDUSTRY
USE OF PLANNING

Market conditions determined need

Public sector experience

Focus on market demand

Limited information available

OF COURSE, STUDIES WERE MADE BY INDUSTRY BUT MORE OFTEN BY GOVERNMENTAL AGENCIES. UNFORTUNATELY, MOST OF THESE STUDIES DESCRIBED HISTORICAL CONDITIONS. THEY WERE NOT STRUCTURED TO INCLUDE THE DYNAMICS OF THE INTERACTION OF SUPPLY AND DEMAND.

FURTHERMORE, THE HISTORICAL APPROACH DID NOT IDENTIFY THE COMPLEXITIES OF THIS MARKET IN QUANTITATIVE TERMS, PRIMARILY BECAUSE THERE IS VERY LITTLE PUBLIC DISCLOSURE OF REVENUES, COSTS, AND PROFITS. IN ADDITION, INFORMATION ABOUT INDUSTRY-WIDE TRAFFIC FLOWS AND EQUIPMENT OWNERSHIP IS NOT TIMELY. CORPS OF ENGINEERS DATA, FOR EXAMPLE, ARE TWO YEARS OLD WHEN RELEASED.
REVENUE AND UTILIZATION
1973-1983

- A: Real Revenues per Ton-Mile Index
- B: Revenue per Capacity Unit
- C: Utilization Percent

THE RANGE IN THE REVENUES PER TON-MILE INDEX DURING 1980 TO 1983 SHOWN BY THE SHADED AREA SHOWS THE LOWER REVENUES FOR THOSE CARRIERS EXPOSED TO SPOT MARKET RATES DURING THE PERIOD OF DECLINE.

THE VARIATION IN FLEET UTILIZATION PERCENTAGE IS INTERESTING. IT DECREASED IN THE EARLY 1970s, STAYED CONSTANT UNTIL NEW GROWTH IN 1980, AND THEN DROPPED RAPIDLY IN 1981--THE YEAR OF HIGHEST PROFITABILITY FOR MANY COMPANIES. MUCH OF THESE PROFITS CAME FROM BARGES BEING USED TO STORE, NOT TRANSPORT, GRAIN AND PETROLEUM. THUS COMPANY PROFITS STAYED CONSTANT OR EVEN INCREASED DURING THIS PERIOD OF DECREASING UTILIZATION OF BARGES FOR TRANSPORTATION.

THE POINT HERE IS THAT THE INDUSTRY HAS BEEN OPERATING IN A CYCLICAL AND CHANGING MARKET, BUT ALL OF US WEREN'T AWARE OF THE SERIOUSNESS AND SIGNIFICANCE OF THESE CYCLES BECAUSE WE WERE STILL MAKING MONEY AND OVERALL GROWTH WAS GOOD. NOW THAT WE ARE HURTING, WE NEED TO BETTER UNDERSTAND THE FACTORS THAT CAUSED THE PAIN.

BY MEASURING THE TONS CARRIED FOR EVERY THOUSAND DOLLARS OF GROSS NATIONAL PRODUCT FOR EACH YEAR, YOU CAN SEE A CONTINUING LONG-TERM DROP IN THE USE OF BARGE FREIGHT IN THE ECONOMY RATHER THAN THE INCREASE IN TOTAL TONS CARRIED THAT SO MANY OF US SAW.
<table>
<thead>
<tr>
<th>Timing is critical</th>
<th>Limitations of intuition and experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good times</td>
<td>Inconsistent</td>
</tr>
<tr>
<td>Bad times</td>
<td>Continuing trends</td>
</tr>
<tr>
<td>Relevance of models</td>
<td></td>
</tr>
</tbody>
</table>
A KEY FUNCTION FOR COMPANY MANAGERS IS TIMING. WE HAVE TO TIME OUR SERVICES, REVENUE FLOWS, AND EQUIPMENT ACQUISITIONS IN THE BEST POSSIBLE WAY. IF WE KNOW WHEN TO LOCK INTO CONTRACTS, WHEN TO GO ON THE SPOT MARKET, WHEN TO INVEST, WHEN NOT TO, AND WHEN TO LAY UP, THEN WE CAN OPTIMIZE THE BUSINESS.

TO MAKE THESE DECISIONS AT THE RIGHT TIMES, WE NEED BETTER INFORMATION AND STRATEGIC PLANNING TOOLS. THE PROPER DECISIONS ARE BASED ON EVALUATIONS OF TRENDS AND CYCLES.

IN THE PAST, MOST BARGE COMPANIES HAVE RELIED ON INTUITION AND EXPERIENCE. UNFORTUNATELY, THIS EXPERTISE WAS DEVELOPED DURING A PERIOD OF PROSPERITY, AND MAY OFFER LIMITED HELP DURING BAD TIMES.

AND NOW, WHEN TIMES ARE BAD, MUCH OF OUR INDUSTRY'S INTUITION SAYS THAT THE MARKET WILL IMPROVE SOON. THAT INTUITION MAY JUST BE WISHFUL THINKING.

THE HISTORICAL ANALYSES AND PROJECTIONS OF DEMAND TYPICALLY AVAILABLE IN OUR INDUSTRY HAVE LIMITATIONS FOR STRATEGIC PLANNING.

FIRST, THEY ARE GENERALLY ONE-TIME FORECASTS. THEY ARE NOT CONSISTENTLY DEVELOPED, NOR ARE THEY VERIFIED. SECOND, THE TREND ANALYSIS THAT IS ALWAYS USED DEPENDS ON THE PAST AND GENERALLY DOES NOT IDENTIFY MANY FUTURE CHANGES. THIRD, THE MODELS AND THEORIES ARE GENERALLY ABSTRACT AND HAVE LOW CREDIBILITY OR USEFULNESS WITH OPERATING PEOPLE. THE APPROACH WE HAVE DEVELOPED TO STRATEGIC PLANNING IS NOT A TOTAL BREAK WITH PAST METHODS.

RATHER, IT PROVIDES THE PROPER FRAMEWORK AND INFORMATION FOR IMPROVING BOTH ON INTUITION AND PERSONAL EXPERIENCE. INCORPORATING VARIOUS ENVIRONMENTAL AND HISTORICAL ANALYSES, THIS FRAMEWORK IS AN OBJECTIVE METHOD FOR TESTING THE IMPACT OF ALTERNATIVE SCENARIOS ON AN ORGANIZATION'S FUTURE SUCCESS.

TO BEGIN, LET'S LOOK AT THE PERCENT CHANGES IN TRAFFIC ON THE MISSISSIPPI RIVER SYSTEM DURING THE GROWTH PERIOD FROM 1970 TO 1981. GROWTH WAS HIGHLY CONCENTRATED IN GRAIN AND COAL TRAFFIC, BOTH IN TONS AND TON-MILES.

TRAFFIC IN BLACK OIL PRODUCTS INCREASED BECAUSE OF CHANGES IN CRUDE SUPPLY AND REFINERY INFRASTRUCTURE. FERTILIZER SHIPMENTS INCREASED, BUT NOT IN STEP WITH THE RISE IN GRAIN TRAFFIC. CHEMICAL TRAFFIC ROSE SLIGHTLY TO MEET INCREASED PRODUCTION NEEDS IN THE GULF AREAS.

OVERALL, GROWTH WAS STRONG IN THE 1970s. BUT AS YOU WILL SEE LATER, MAJOR NEW FLEET ADDITIONS WERE MADE BY PEOPLE THAT CONTROLLED THE GRAIN AND COAL SHIPMENTS.

THIS SLIDE SHOWS OUR FORECASTS OF GRAIN SHIPMENTS FOR THE MISSISSIPPI RIVER SYSTEM.

TWO FORECASTS WERE MADE TO INDICATE THE RANGE OF TONS SHIPPED DUE TO VARIATIONS IN THE MARKET SHARE OF MISSISSIPPI RIVER TRAFFIC COMPARED TO TOTAL U.S. EXPORTS. THE TOP LINE IS WHAT YOU WOULD GET USING HISTORICAL FORECASTING METHODS.

DOMESTIC COAL SHIPMENTS GREW DURING THE 1970s BUT TURNED DOWN IN 1981 AS STEEL PRODUCTION FELL OFF AND UTILITY INVENTORIES WERE REDUCED. SHIPMENTS FOR EXPORT BUILT UP RAPIDLY. HOWEVER, MISSISSIPPI RIVER PORTS ARE SURGE EXPORT POINTS, SO THEY ARE SUBJECT TO WIDE SWINGS OF UTILIZATION WHEN NATIONAL EXPORT DEMAND SHIFTS.

WE ANTICIPATE SLOW DOMESTIC GROWTH IN COAL BARGE MOVEMENTS AS STEEL RECOVERS TO 1981 LEVELS AND UTILITY DEMAND INCREASES MODERATELY. COAL EXPORT GROWTH WILL BE CONSTRAINED BY HIGH F.O.B. PRICES, A STRONG DOLLAR, EXPORTS FROM OTHER COASTAL PORTS, AND SUBSTANTIAL WORLDWIDE COMPETITION. COLUMBIA AND SOUTH AFRICA, IN PARTICULAR POLAND IS ALREADY BACK TO PRE-TURMOIL LEVELS.
FUTURE DEMAND

Gradual growth in major bulks

Slow decline in petroleum products

Chemicals stable

Coal recovery by late 1980s

Moderate grain increase
OVERALL, WE ANTICIPATE GRADUAL GROWTH IN SHIPMENTS OF MAJOR BULK COMMODITIES, BOTH DRY AND LIQUID. PETROLEUM PRODUCT MOVEMENTS WILL CONTINUE THEIR SLOW DECLINE, BUT CHEMICAL SHIPMENTS WILL BE STABLE. COAL TRAFFIC WILL NOT RECOVER UNTIL THE END OF THIS DECADE, IF THEN, AND BARGE MOVEMENTS OF GRAIN WILL SHOW ONLY MODERATE GAINS DURING THIS PERIOD.

OBVIOUSLY, UNUSUAL SHOCKS SUCH AS ENERGY READJUSTMENTS OR MAJOR GRAIN SHORTAGES ABROAD ARE NOT PREDICTABLE. HOWEVER, THE EFFECTS OF SUCH EVENTS WILL BE RELATIVELY SHORTLIVED, LASTING AT MOST ONE TO TWO YEARS.
TOWBOAT FLEET PRODUCTIVITY

Ton-miles per horsepower
PRODUCTIVITY OF TOWBOATS HAS BEEN DECREASING SINCE THE LATE 1960s, FROM 50,000 TON-MILES PER AVAILABLE HORSEPOWER TO APPROXIMATELY 40,000 TON-MILES SINCE 1982.

THIS DECLINE IS DUE TO OVERBUILDING OF TOWBOATS, RUNNING SLOW TO CONSERVE FUEL, AND INCREASED CONGESTION ON SOME WATERWAYS.
UTILIZATION AND BARGE FLEET ADDITIONS 1968-1983

Utilization

Fleet Additions (% 1968 fleet)

Additions to Fleet

Utilization (%)

Year

68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83

THERE WAS REALLY NO LOGIC FOR THE DRAMATIC INCREASE IN ORDERS IN 1979 THROUGH 1981. NOW BARGES WERE IN TIGHT SUPPLY IN 1980 AND 1981, BUT IT WAS A COMBINATION OF MANY, MANY TEMPORARY FACTORS, NONE OF WHICH CHANGED THIS BASIC FACT THAT LONG-TERM BARGE SUPPLY WAS SIGNIFICANTLY OUTPACING DEMAND.

LET'S REMEMBER WHAT SOME OF THOSE THINGS WERE THAT CAPTURED OUR IMAGINATION AND MADE US FORGET WHAT WAS REALLY GOING ON IN OUR BUSINESS.

--I CAN REMEMBER ON ANY GIVEN DAY THERE WOULD BE 3,000 GRAIN BARGES WAITING TO UNLOAD IN NEW ORLEANS.

--DO YOU REMEMBER THE PICTURES OF SHIPS LAYING AT ANCHOR OFF NORFOLK, WHICH CAUSED FOREIGN BUYERS TO PAY $5 OR $6 PER TON MORE FOR COAL THROUGH NEW ORLEANS.

--I REMEMBER ONE BARGE COMPANY CARRYING COAL FROM THE OHIO RIVER TO ST. LOUIS, RELOADING THE SAME BARGES WITH COAL OF VERY SIMILAR QUALITY AND BRING IT BACK TO THE OHIO RIVER.

--LOADED PETROLEUM TOWS REGULARLY MET ONE ANOTHER CARRYING THE SAME PRODUCT TO OPPOSITE DESTINATIONS.

--CRUDE OIL TOWS DID THE SAME.

--AND I SUSPECT SOME OF THEM WERE BUSY MAKING NEW OIL OUT OF OLD. THINK AT THOSE NONE OF THEM NONE OF THEM CREATING REAL LONG-TERM DEMAND.

BY 1982, ORDERS FOR NEW BARGES FELL TO MINIMAL LEVELS. DURING THE ENTIRE PERIOD, SUPPLY CONSISTENTLY EXPANDED MORE RAPIDLY THAN DEMAND.

WITH A BETTER UNDERSTANDING OF THE DYNAMICS OF SUPPLY AND DEMAND, SOME OF THESE WIDE SWINGS IN UTILIZATION AND FLEET ADDITIONS WOULD HAVE BEEN MODERATED. IF WE CAN GIVE THE INDUSTRY JUST ONE THING IT WOULD BE THAT ANALYSIS AND FORECAST OF THE SUPPLY DEMAND FACTORS AND APPROPRIATE INDUSTRY REACTION COULD HAVE AVOIDED MUCH OF OUR CURRENT HURT.
CONSTRUCTION CAPACITY, UTILIZATION, AND DEMAND

<table>
<thead>
<tr>
<th>Barges per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity</td>
</tr>
<tr>
<td>Maximum Throughput in 1983</td>
</tr>
<tr>
<td>Ordered 1984-1986</td>
</tr>
</tbody>
</table>

- Capacity: 4,000 barges per year
- Maximum Throughput in 1983: 2,000 barges per year
- Ordered 1984-1986: 0 barges per year
- Required 1984-1986: 0 barges per year
THE IMPACT OF OVERCAPACITY ON THE BARGE CONSTRUCTION YARDS IS CLEARLY SHOWN IN THIS SLIDE. THE U.S. NOW HAS ENOUGH CAPACITY TO BUILD ALMOST 4,000 BARGES EACH YEAR. THE HIGHEST NUMBER OF BARGES BUILT IN ANY YEAR WAS ABOUT 2,500. VERY FEW BARGES WERE ORDERED IN 1983 AND FEWER STILL WILL BE REQUIRED FROM 1984 TO 1986.

SOME YARDS HAVE PERMANENTLY CLOSED AND OTHERS HAVE TEMPORARILY SHUT DOWN. CONSTRUCTION CAPACITY STILL GREATLY EXCEEDS ANY FORECAST OF LONG-TERM DEMAND.
AGE OF FLEET

Year of Construction

Percent

A Open
B Covered

Pre-1950 50-55 56-60 61-65 66-70 67-75 76-80 1981
CAPITAL COST: HOPPER BARGE
FLEET BY CARRIER TYPE

Year Built

68 69 70 71 72 73 74 75 76 77 78 79 80 81
THE FIXED COST OF EACH OPERATOR'S HOPPER BARGE FLEET IS DETERMINED BY THE YEAR THAT EACH BARGE WAS BUILT. INFLATION INCREASED COSTS OVER THE YEARS AND DEPRECIATION HAS REDUCED THE BOOK VALUE OF OLDER BARGES.

AGE AND COST DISTRIBUTION: COVERED BARGE FLEET

Number in Service

Capital Cost Index

Private

Common

Independent

64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000

0 150 300 450 600 750 900
THIS SLIDE SHOWS THE NUMBER OF COVERED HOPPER BARGES HELD BY EACH SECTOR. ARRANGED BY SAME RELATIVE GROWTH IN COST AS THE PREVIOUS SLIDE.
UTILIZATION OF TOWBOATS AND BARGES ON MISSISSIPPI AND GULF INTRA-COASTAL SYSTEMS

Assumes 2 percent net scrapping and demand growth as shown above.
WE ANTICIPATE THAT THE UTILIZATION RATES FOR TOWBOATS AND BARGES WILL IMPROVE WHEN DEMAND GROWS IN THE MID- AND LATE-1980s AND EXCESS BARGE CAPACITY IS SCRAPPED. STILL IT'S A LONG WAY BACK TO LOGICAL UTILIZATION RATES.

IN 1985, 4,500 COVERED HOPPER BARGES WILL BE OVER 15 YEARS OLD. THIS IS ALMOST HALF THE CURRENT OPEN FLEET. LOW UTILIZATION WILL CONTINUE TO DEPRESS FREIGHT RATES, FINANCIAL RETURNS, AND NEW CONSTRUCTION.

THE SCRAPPING PACE MAY BE TOO LITTLE, TOO LATE. SCRAPPING IS NOW UP: 150 BARGES IN 1980, 500 IN 1983. HOWEVER, THE ANNUAL RATE OF REDUCTION IS STILL ONLY 2 PERCENT. THE INDUSTRY PROBABLY NEEDS A SCRAPPING RATE OF 1,000 HOPPER BARGES PER YEAR FOR SEVERAL YEARS.

INDIVIDUAL COMPANIES MUST MAKE APPROPRIATE STRATEGIC DECISIONS OR THE ENTIRE INDUSTRY, AS WELL AS SHIPPERS THAT RELY ON THEM, WILL BE PROFOUNDLY AFFECTED.

AS THE INDUSTRY COMES OUT OF RECESSION, SURVIVORS AS A GROUP NEED TO CONTINUE TO REDUCE FLEET CAPACITY TO ACCELERATE RECOVERY. OTHERWISE, THEY WILL FIND THEMSELVES DRIVE TO LOW-COST, LOW-RISK, AND REACTIVE STRATEGIES THAT WOULD ULTIMATELY RESULT IN REDUCED SERVICE AND INDUSTRY CAPABILITY.

NOW BRENT DIBNER OF TBS WILL DESCRIBE THE FORECASTING METHODS AND THE RESULTS OF THOSE FORECASTS.
OBJECTIVES

Review current market conditions

Relate past decisions to today's conditions

Examine implications for the future
AGENDA

Current Market Conditions
Fleet Development
Traffic Analysis and Forecasts
- Grain traffic
- Coal traffic
- Crude oil traffic
- Products traffic
- Fertilizer traffic
Implications of Oversupply
INLAND BARGE INDUSTRY
USE OF PLANNING

Market conditions determined need

Public sector provided quantitative market insights

Public sector focused on demand side

Limited information is available
STRATEGIC PLANNING FOR INDUSTRY DYNAMICS

Timing is critical

Limitations of intuition and experience
- Good times
- Bad times

Limitations of historical analysis
- Inconsistent
- Continuing trends
- Relevance of models
THE CURRENT SITUATION

Inland transportation industry no longer financially healthy or growing

Market environment dramatically altered

Leading carriers suffering losses

Other carriers’ profits declining

Regulatory and intermodal environment changing rapidly and profoundly
Both revenues per ton-mile and utilization declining in 1983

Revenue per unit capacity hit new low

Even lower revenues expected for carriers exposed to spot market rates

Every carrier now feeling effects
THE IMMEDIATE FUTURE

Retained earnings and "credit" running out

Bankruptcies imminent

Capacity re-entering market under new management at lower capital costs
INDUSTRY SUPPLY

Numbers changed significantly
Attractive barge rates attracted capital,
managers, and companies

- Shippers increased capacity
- Asset-hungry companies acquired/
  expanded fleets
- Outsiders invested in fleet capacity
- Many carriers integrated services
  - Fleeting
  - Repair
  - Construction
RATES VARY WITH MARKET CONDITIONS

Rate Cycles

Market Conditions
INDUSTRY RESPONSES VARY WITH MARKET/RATE CYCLES

- Financial sources
- Carriers
- Shippers
- Builders
INLAND BARGE INDUSTRY STRATEGIC CYCLES: FINANCIAL SOURCES

RATE CYCLE

Rise Peak \[ \text{MUST-HAVE CONDITIONS} \] Rise

Strong Weak Strong

Decline Bottom Rise

\# Increase supply 
\# Buy into industry 
\# Provide liquidity and protect assets 
\# Attempt to leave industry 
\# Renewed interest
INLAND BARGE INDUSTRY
STRATEGIC CYCLES: CARRIERS

RATE CYCLE

Rise
Peak
MARTK CONDITIONS
Strong
Weak
Strong
Decline
Bottom
Rise

★ Accept cost increases
★ Maximize spot revenue
★ Increase volume
★ Order vessels and yard capacity

★ Merge
★ Increase service levels

★ Cancel equipment orders
★ Stop construction
★ Abandon rate differentials
★ Reduce costs
★ Underprice
★ Lay up
★ Scrap

★ Purchase low-cost equipment
★ Price effectively
★ Reduce service levels
★ Charge for services
INLAND BARGE INDUSTRY
STRATEGIC CYCLES: SHIPPERS

RATE CYCLE
Rise → Peak → Decline → Bottom → Rise

MARKET CONDITIONS
Strong → Weak → Strong

- Become carriers and builders
- Divert cargo from river
- Use private fleets
- Lay up private capacity
- Let contracts expire
- Get low rate contracts
- Purchase spot transportation
- Divert cargo to river
- Renewed interest
INLAND BARGE INDUSTRY
STRATEGIC CYCLES: BUILDERS

Rise  Peak  RATE CYCLE
Strong  Weak  Strong

- Increase prices and delay deliveries
- Increase capacity
- Drop price
- Seek alternative markets
- Mothball facility
- Sell plant
- Restore capacity
## EXISTING FLEET

<table>
<thead>
<tr>
<th>Type</th>
<th>Quantity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,000 towboats</td>
<td>$ 4.0 billion</td>
<td></td>
</tr>
<tr>
<td>4,300 tank barges</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>7,500 open hoppers</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>11,000 covered hoppers</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>2,000 deck barges</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td><strong>27,800 vessels</strong></td>
<td><strong>$10.3 billion</strong></td>
<td></td>
</tr>
</tbody>
</table>

Replacement Value
AGE PROFILE AND IMPLICATIONS FOR INLAND FLEETS 1984

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Vessels Over 20 Years</th>
<th>Fleet Inventory</th>
<th>Percent Over 20 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open hopper</td>
<td>1,726</td>
<td>7,773</td>
<td>22%</td>
</tr>
<tr>
<td>Covered hopper</td>
<td>1,262</td>
<td>11,444</td>
<td>11</td>
</tr>
<tr>
<td>Tank</td>
<td>455</td>
<td>1,733</td>
<td>26</td>
</tr>
<tr>
<td>1,000 - 3,000 HP towboat</td>
<td>92</td>
<td>380</td>
<td>24</td>
</tr>
<tr>
<td>3,000 - 4,000 HP towboat</td>
<td>55</td>
<td>131</td>
<td>42</td>
</tr>
<tr>
<td>4,000 - 6,000 HP towboat</td>
<td>29</td>
<td>213</td>
<td>14</td>
</tr>
<tr>
<td>6,000 - 8,000 HP towboat</td>
<td>0</td>
<td>56</td>
<td>14</td>
</tr>
<tr>
<td>8,000 HP +</td>
<td>2</td>
<td>37</td>
<td>5</td>
</tr>
</tbody>
</table>
TOWBOAT FLEET DEVELOPMENT

472 linehaul towboats added between 1970 and 1983
- Most under 4,000 HP
- 75 over 6,000 HP

Towboat supply increased less rapidly than barge capacity

Little chance for scrapping or retirement
COMPARATIVE INCREASES IN RIVER TON-MILES

- A: New Orleans to Baton Rouge
- B: Baton Rouge to Cairo
- C: Cairo to Missouri River
- D: Missouri River to Minneapolis
- E: Ohio River
- F: Illinois River

Year: 70 71 72 73 74 75 76 77 78 79 80 81

Graph showing comparative increases in river ton-miles from various points on different rivers from 1970 to 1981.
PRODUCTIVITY OF
INLAND BARGES 1970-1983

Thousands of
Ton-Miles per Capacity Ton

Year

70 71 72 73 74 75 76 77 78 79 80 81 82 83

Tank
Covered hopper
Open hopper
UTILIZATION AND BARGE FLEET ADDITIONS 1968-1983

Fleet Additions (% 1968 fleet)

Utilization

Additions to Fleet

Year
THE DEMAND-SUPPLY CYCLE

High 1969-1972 utilization resulted in 1971-1974 additions to fleet


Additions overwhelmed demand

Utilization dropped to 1973 low

1972-1982 orders fell to minimal levels
MISSISSIPPI RIVER TRAFFIC

1970-1981

Tons
Ton-Miles

Percent

Coal
Major Chemicals
Others (Net)
Grain
Oil
Fertilizers
Products
FLEET DEMAND BY COMMODITY

Growth highly concentrated in grain and coal

Black oil products up
- Changing crude supplies
- Changing refinery infrastructure

Fertilizers increased to support agricultural demand

Chemicals rose to meet increased Gulf production

Growth was easy

Tons per $1,000 GNP in 1972

Year: 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
FLEET DEMAND

Declined relative to U.S. economy even with increased grain and coal traffic

Separated steadily from U.S. economic activity measured by GNP

Stagnated in general cargo and neobulk categories
FUTURE DEMAND

- Gradual growth in major bulks
- Export coal
- Export grain

Slow decline in petroleum products
Chemicals stable
ALL WESTERN RIVERS TON-MILE DEMAND
INLAND GRAIN TRAFFIC: KEY INDICATORS

- U.S. Exports
  Bushel Basis
- Mississippi System
  Major Grains
U.S. AND WORLD GRAIN TRADE

<table>
<thead>
<tr>
<th>Year</th>
<th>World</th>
<th>U.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td></td>
<td></td>
</tr>
<tr>
<td>71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td></td>
<td></td>
</tr>
<tr>
<td>77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. Share in Percent

- 41
- 38
- 49
- 67
- 60
- 61
- 63
- 60
- 65
- 66
- 65
- 63
- 61
- 62

Millions of Metric Tons

- 0
- 50
- 100
- 150
- 200
- 250
- 300
GRAIN: EXPORTS

Competition from Canada, Argentina, Brazil, Australia

Increased foreign production

Reduced U.S. production

High U.S. commodity prices
GRAIN: MISSISSIPPI SHARE OF U.S. EXPORTS

No rate recovery

Rate recovery

Percent

Year

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
GRAIN: MISSISSIPPI SHARE

High barge rates could reduce inland traffic, but as

- Demand declines
- Rates could move downward again
MISSISSIPPI RIVER SYSTEM
GRAIN TRAFFIC

FORECASTS UNDER DIFFERENT SHARES

- Actual History
- 50 Percent Share
- Declining Share to 42 Percent
GRAIN: EXPORTS

Continued strong dollar

The lingering effects of the Russian trade embargo
- Russian preference to barter rather than purchase grain
- Increased financial pressures to export on Argentina and Brazil
INLAND COAL KEY INDICATORS

- U.S. Domestic Coal Consumption
- U.S. Coal Production
- Mississippi System Non-Export Tonnage
- Exports via Barge
COAL

Export growth constraints
- High F.O.B. prices
- Continued strong dollar
- More coastal exports
- Noncompetitive U.S. prices
- Railroad rates
- Draft limitations
COAL

Export shipments will recover
- Steam coal exports will emerge over met coal
- Gulf is surge export point
- Mobile competing for top Gulf position
- Will remain sensitive to oil prices, U.S. costs, and foreign competition
COAL

- Domestic shipments suppressed
- Steel production will see reductions in coking requirements
- Utility requirements will increase slowly
- Industrial, residential, and commercial demand will stabilize
INLAND CRUDE OIL TRAFFIC: KEY INDICATORS

- Gulf States Production
- Mississippi System Traffic

Year

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
CRUDE OIL

Closely followed declining Gulf production

- Western Louisiana/East Texas production off sharply
- Major drop in New Orleans-Baton Rouge traffic as sweet crude was refined by majors
- Increased import crude deliveries by ship to riverside refineries
- Pipeline network highly developed
INLAND BLACK OIL PRODUCTS TRAFFIC: KEY INDICATORS

![Graph showing the comparison between Gulf States Residual and Asphalt Refinery Production and Mississippi System Black Oil Tonnage over the years 70 to 90.](image)
BLACK OIL PRODUCTS

Production and traffic down since 1978

Residual oil/asphalt down as fraction of Gulf refiners' production slates
- 12 percent in 1978
- 8 percent in 1982

Higher value distillates critical in deregulated market
INLAND CLEAN PRODUCTS TRAFFIC: KEY INDICATORS

- Gulf States
  Clean Fuels Refining
- Mississippi System
  Clean Products Tonnage

Year

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90
CLEAN PRODUCTS

Net decline

Pipeline transfers major cause

Key long-haul traffic lost
- Distillate
- Jet fuel
- Kerosene
- Gasoline
INLAND FERTILIZER TRAFFIC:
KEY INDICATORS

![Graph showing U.S. Fertilizer Production in Tons and Mississippi System Fertilizer Tons over the years from 1970 to 1990.](image)
FERTILIZER

After rapid 1970-1972 growth, traffic followed production

Traffic declined in 1981 although production increased

Stiff competition from railroads a major factor
A GUIDE TO STRATEGIC PLANNING FOR THE INLAND BARGE AND TOWING INDUSTRY

DRAYO MELCHING CORP NEW ORLEANS

LA B DIBNER ET AL. DEC 84 3861-4-00-APP-1

UNCLASSIFIED MA-RD-770-85006 DTM91-03-C-30063 F/G 15/5 NL
FLEET PRODUCTIVITY

Ton-miles per barge ton

Thousands of Ton-miles

68 69 70 71 72 73 74 75 76 77 78 79 80 81 82
UTILIZATION OF TOWBOATS AND BARGES ON MISSISSIPPI AND GULF INTRACOASTAL SYSTEMS

Assumes 2 percent net scrapping and demand growth at 1 percent annually.
RECOVERY

Spot grain rates must increase to cover out-of-pocket costs

Utilizations must increase to above 1975-1980 levels to compensate for loss of demurrage revenue and increased efficiencies of terminals
RECOVERY

Capacity must be reduced
- Increased scrapping
- No new construction
- Revalued equipment to discourage new entrants
OVERSUPPLY FACTORS:
AGING STOCK

Some open hopper barges 80 years old
Some covered hopper barges almost 40
Significant numbers built before 1963
• 10% covered fleet
• 20% open fleet
CAPITAL COST COMPARISONS:
COMMON CARRIERS

Covered fleet
- Average age 11-14 years
- Low capital cost level
  - Under fleet average
  - Less than half of independents
- Common carriers have been in low-cost position
- Private carriers absorb fleet capital cuts on cargo
IMPLICATIONS OF Oversupply

By 1985, 4,500 covered hopper barges will be over 15 years old
- Almost half current open fleet
- More conversions than scrapping expected
- Low utilization will depress freight rates, returns, construction

Scraping pace too little, too late
- Scraping up: 150 in 1980, 500 now
- Annual rate of reduction still only 2%
OVERSUPPLY FACTORS: CONVERSION

Scrapping fully depreciated barges could benefit open hopper market.

However, operators tend to convert deteriorating covered barges into open hopper barges.
SCRAPPING LEVELS

20 businesses engaged in scrapping; some speculate in barges

Too little; too late

Historical rate: 150 barges per year

1983 rate: about 500 barges per year

Still too little

Need 1,000 per year for several years
THE FLEET REDUCTION DILEMMA

Short Term Supply
- In position - serviceable
- Out of position - serviceable

Long Term Supply
- Out of position - nonserviceable

Used for non-transportation
- Moored for fleet use
- Sunk for fleet use
- Sold for scrap
  - Scrapped
  - Sunk
FUTURE FLEET BEHAVIOR

Key to industry recovery

Restraints

Scrapping

Construction
  • Covered construction first
  • Lag in open construction
  • Limited tank construction
FLEET SUPPLY

Conclusions

- Supply consistently expanded more rapidly than demand
- High rates made reduced coverage of equipment acceptable
- One-way nature of new business required freight rate increases
The Strategic Planning Process for the Inland Barge and Towing Industry

I. Bernard Jacobson

TRB/AWO Midyear Meeting
August 13, 1984

Draavo Mechling Corporation
Temple, Barker & Sloane, Inc.
THE STRATEGIC PLANNING PROCESS FOR THE INLAND BARGE AND TOWING INDUSTRY

RECENT HISTORY UNDERSCORES THE HIGH LEVEL OF UNPREDICTABILITY THAT THE OPERATOR OF AN INLAND BARGE LINE IS LIKELY TO FACE OVER THE NEXT DECADE. GOVERNMENT-IMPOSED EXPORT RESTRICTIONS, CHANGING ENERGY PRICES, AND WORLDWIDE RECESSION CAN PLAY HAVOC WITH THE MOST CAREFULLY PLANNED COMPANY STRATEGY. 

HOWEVER, EFFECTIVE STRATEGIC PLANNING CAN HELP MITIGATE MUCH OF THE DESTABILIZING IMPACT OF THE UNFORESEEN.

EFFECTIVE PLANNING LEADS TO THE DEVELOPMENT OF STRATEGIES WHICH:

- ALIGN A BARGE LINE'S RESOURCES TO FOCUS STRENGTHS ON AREAS OF OPPORTUNITY WHILE AVOIDING THREATS;
- ENSURE ENOUGH FLEXIBILITY TO RESPOND TO THE UNFORESEEN; AND
- PROVIDE YARDSTICKS THAT MONITOR THE COMPANY'S PROGRESS TOWARDS STRATEGIC OBJECTIVES.
Strategic Planning Phases

PHASE I
Analyze Environments

PHASE II
Develop Strategies

PHASE III
Make Strategic Plans
STRATEGIC PLANNING PHASES

THIS SLIDE OUTLINES A STRUCTURE FOR PLANNING THAT WE HAVE DEVELOPED TO ENABLE MANAGERS OF INLAND BARGE LINES TO DEAL MORE EFFECTIVELY WITH THE CHALLENGES OF THE FUTURE.

THE PLANNING PROCESS CONSISTS OF THREE PHASES:

- **First**, an analysis and forecast of the company's business environments,
- **Second**, the development of company objectives and strategies, and
- **Third**, the implementation of the selected strategy.

The process begins with an analysis of the various company environments. This analysis provides a basis for the projection of external factors that will impact the company. Against this projection, an assessment of the company's capabilities is overlaid to determine issues of strategic importance—those factors which may play a critical role in the company's future success.

Alternative strategies are designed to address the challenges of the strategic issues. These strategies are rigorously tested in the context of the future environment to select the most effective.

Finally, the cycle is completed with the implementation of the selected strategies. Monitoring performance against strategic objectives will lead to the identification of new strategic issues. The process would then begin anew.

3-4
Phase I
Analyze Environments

1. Analyze External Environments

2. Assess Internal Strengths and Weaknesses

3. Develop Forecasts
PHASE I: ANALYZE ENVIRONMENTS

THE FIRST PHASE OF THE PLANNING PROCESS CONSISTS OF AN ANALYSIS OF IMPORTANT FACTORS AND TRENDS WITHIN THE COMPANY'S EXTERNAL AND INTERNAL ENVIRONMENTS. THIS ANALYSIS THEN FORMS THE BASIS FOR A PROJECTION OF THE LIKELY FUTURE. THE EXTERNAL ENVIRONMENTAL ANALYSIS DEALS WITH TOPICS SUCH AS:

- THE INDUSTRY,
- THE MARKET,
- COMPETITION, AND
- OTHER ENVIRONMENTAL FACTORS.

THE INTERNAL ENVIRONMENTAL ANALYSIS DEALS WITH THE ASSESSMENT OF THE COMPANY'S OWN STRENGTHS AND WEAKNESSES.
1. Analyze External Environments

- Industry
- Market
- Competitors
- Legal and regulatory
- Physical characteristics
- New technology
- Resources
- Other modes
ANALYZE EXTERNAL ENVIRONMENTS

UNDERSTANDING YOUR COMPANY’S EXTERNAL ENVIRONMENTS WILL REQUIRE KNOWLEDGE OF THESE FACTORS.

AN ANALYSIS OF THE ENTIRE INLAND BARGE AND TOWING INDUSTRY PROVIDES THE STRATEGIC PLANNER WITH A FRAME OF REFERENCE AGAINST WHICH THE PERFORMANCE OF THE COMPANY ITSELF CAN BE ASSESSED. FOR EXAMPLE, KNOWLEDGE OF THE AMOUNT AND AGE OF BARGES AND TOWBOATS AVAILABLE TO THE INDUSTRY WILL GIVE IMPORTANT INFORMATION ABOUT EXPECTED RATE LEVELS AND THEIR PERSISTENCE.

FOR MARKET ANALYSIS, THE TRAFFIC SHOULDN’T BE PROFILED OVER TIME BY COMMODITY AND SHIPPER GROUP IN ORDER TO OBSERVE ANY TRENDS AND SHIFTS IN THE RELATIVE IMPORTANCE OF THOSE MARKET SEGMENTS.

A KEY ASPECT OF COMPETITOR ANALYSIS IS THE PROFILING OF A COMPETITOR’S POSITION RELATIVE TO YOUR COMPANY, IN TERMS OF IMPORTANT BUSINESS ATTRIBUTES. THESE ATTRIBUTES INCLUDE NUMBER AND TYPES OF TOWBOATS AND BARGES IN SERVICE, MARKET SEGMENTS SERVED IN TERMS OF RIVERS AND COMMODITIES, SERVICES OFFERED, RATES, AND MARKET ROLE (LEADER, FOLLOWER, ETC.). THE CRITICAL ELEMENT IN ANALYZING COMPETITORS IS TO LEARN WHO THEY ARE AND THEN TO IDENTIFY AND UNDERSTAND THEIR PRESENT STRATEGY AND THE LIKELY DIRECTIONS OF THEIR FUTURE STRATEGIES.
ANALYZE EXTERNAL ENVIRONMENTS (CONTINUED)

COMPANY'S ADVANTAGE. EXAMPLES OF THESE ISSUES ARE INTERMODAL OWNERSHIP, WATERWAY USER CHARGES, AND ICC DEREGULATION.

CHANGES IN THE INLAND WATERWAY SYSTEM CAN HAVE IMPORTANT IMPACTS ON THE FUTURE OPERATIONS AND MARKETS OF A BARGE LINE. LOCK REPAIRS, LOW WATER, AND FLOODS CAN IMPOSE DELAYS ON PARTICULAR WATERWAYS THAT COULD SERIOUSLY AFFECT THE ECONOMICS OF MARKETS. ON THE OTHER HAND, PLANNED IMPROVEMENTS TO EXISTING WATERWAYS SUCH AS THE 1,200-FOOT LOCK AT ALTON, IL, OR THE NEW WATERWAY CONNECTING THE TENNESSEE AND TOMBIGBEE RIVERS CAN IMPROVE OPERATING EFFICIENCIES OR OPEN UP ENTIRELY NEW MARKETS.

IMPROVEMENTS IN TOWBOAT AND BARGE DESIGN AS WELL AS MATERIALS HANDLING TECHNOLOGY CAN PROVIDE COST REDUCTION OPPORTUNITIES OR OPEN NEW MARKET SEGMENTS TO A BARGE LINE. IT IS IMPORTANT THAT THE TIMING OF NEW INVESTMENTS IN ADVANCED TECHNOLOGY FIT INTO THE TOTAL FINANCIAL FRAMEWORK OF THE COMPANY.

THE AVAILABILITY OF BARGES, TOWBOATS, FUEL, MANPOWER, AND OTHER KEY RESOURCES THAT ARE USED IN THE BARGE LINE'S OPERATIONS WILL AFFECT THE COST STRUCTURE OF THE COMPANY AND THE INDUSTRY. SINCE BARGE RATES ARE OFTEN SENSITIVE TO CHANGES IN CAPITAL AND OPERATING COSTS, KNOWLEDGE OF SUPPLY AND DEMAND IN THESE RESOURCE MARKETS IS VERY USEFUL FOR A TOTAL UNDERSTANDING OF THE DYNAMICS OF THE BARGE TRANSPORTATION MARKET.

ACTIVITIES OF RAILROADS AND PIPELINES CAN HAVE SERIOUS IMPACTS ON INLAND BARGE LINE MARKETS AND PROFITABILITY. AN AWARENESS OF NEW DEVELOPMENTS IN THESE COMPETING MODES IS CRITICAL TO THE BARGE LINE STRATEGIC PLANNER.
2. Assess Internal Strengths and Weaknesses

- Service
- Customer satisfaction
- Market
- Costs
- Equipment
- Financial
- Information
- Personnel
ASSESS INTERNAL STRENGTHS AND WEAKNESSES

The next step is to conduct an internal assessment of the company's strengths and weaknesses relative to others in the industry. A prime objective of the internal evaluation is to identify your areas of competitive advantage that may be used to exploit future opportunities. An example could be the advantage that your fully depreciated barges give you over a competitor who must cover higher fixed costs with his rates.

However, the process should also seek to identify areas of weakness such as high cost terminal operations, which may dictate future strategies to shut down these facilities to decrease the company's vulnerability.

PARTICULAR PERFORMANCE CRITERIA THAT SHOULD BE ASSESSED INCLUDE:

- Indicators of service levels,
- Customer satisfaction,
- Market share,
- Cost structure,
- Equipment utilization,
- Financial performance,
- Information systems,
- And adequacy of personnel.
3. Develop Forecasts

- Demand
- Supply
- Costs
- Rates
DEVELOP FORECASTS

A forecast of demand for barge services for each of the company's market sectors is clearly a critical component of any long-range planning exercise.

In developing a market forecast, it is necessary to go beyond an historical analysis of commodity movements and look at the underlying economic forces that drive the markets. The demand for transportation on the river system is derived from the market demand for the goods, therefore, the need for shipping services is driven by economic conditions surrounding the production and consumption of the commodities.

Projections of traffic levels on specific waterways involve forecasts of general economic conditions and specific sectors of industry, mining, and agriculture.

FORECASTS OF THE NUMBER AND TYPES OF BARGES AND TOWBOATS THAT WILL BE AVAILABLE ARE IMPORTANT TO UNDERSTAND THE SUPPLY SIDE OF THE MARKETPLACE. THIS IS USEFUL WHEN ESTIMATING FUTURE BARGE RATES.

Another element that defines the future markets is the cost structure that your company and competitors will have, economic forecasting services provide estimates of various cost elements such as labor, fuel, and floating equipment.

The most difficult process is attempting to forecast rates. The existence of the grain barge call session shows that a number of shippers and barge lines are willing to put money behind their forecasts.
Phase II
Develop Strategies

4
DEFINE STRATEGIC ISSUES

5
DEFINE MISSION

6
DEFINE STRATEGIC OBJECTIVES

7
DEVELOP ALTERNATIVE STRATEGIES

8
TEST STRATEGIES AGAINST FORECASTS

9
SELECT STRATEGIES
PHASE II: DEVELOP STRATEGIES

DURING THE SECOND PHASE OF THE PLANNING PROCESS, THE SEPARATE ELEMENTS OF ANALYSIS CARRIED OUT EARLIER MUST BE COMBINED IN ORDER TO DETERMINE THE EFFECTS OF THEIR INTERACTION IN SHAPING THE FUTURE ENVIRONMENT AND THE BARGE LINE'S ABILITY TO PROSPER. A NUMBER OF DIFFERENT ANALYTICAL APPROACHES MAY BE REQUIRED TO INTEGRATE THE SEVERAL COMPONENTS OF THE PRIOR ANALYSIS.

IN CREATING AN UNDERSTANDING OF THE COMPANY'S FUTURE ENVIRONMENT, A NUMBER OF ISSUES WHICH ARE LIKELY TO BE CRITICAL TO THE COMPANY'S SUCCESS WILL BE IDENTIFIED. THESE STRATEGIC ISSUES PROVIDE THE FOCAL POINT FOR THE DEVELOPMENT AND EVALUATION OF ALTERNATIVE STRATEGIES.
4. Define Strategic Issues

- Shifts in traffic
- Equipment availability and utilization
- Competitors' activities
- Legal and regulatory constraints
- Waterway capacity
- Technology applications
- Availability of resources
- Future challenges
DEFINE STRATEGIC ISSUES

STRATEGIC ISSUES ARE MAJOR CHANGES IN THE BARGE LINE'S ENVIRONMENT THAT ARE CONSIDERED LIKELY TO HAVE A SIGNIFICANT IMPACT ON THE COMPANY'S FUTURE.

EARLY IN THE PROCESS, IT IS LIKELY THAT THE ENVIRONMENTAL ANALYSIS WILL IDENTIFY A NUMBER OF IMPORTANT STRATEGIC ISSUES. OTHERS MAY SURFACE LATER AS THE COMPANY'S FUTURE ABILITY TO PERFORM IS PROJECTED AGAINST THE BACKDROP OF THE FORECAST ENVIRONMENT. ISSUES GENERALLY FALL INTO THE FOLLOWING AREAS:

- CHANGES IN THE AMOUNT OF NATURE OF COMMODITIES MOVING ON SPECIFIC WATERWAYS
- TOWBOAT AND BARGE AVAILABILITY
- BEHAVIOR OF COMPETITORS, BOTH BARGE OPERATORS AND OTHER MODES
- LEGAL AND REGULATORY CONSTRAINTS
- WATERWAY CAPACITY CONSTRAINTS
- DEVELOPMENTS IN TECHNOLOGY
- AVAILABILITY OF RESOURCES
- THE COMPANY'S ABILITY TO MEET FUTURE CHALLENGES.
5. Define Mission

- Broad goals
- What markets will be served?
- What customer needs will be met?
- How will services be provided?
DEFINE MISSION

A CORPORATE MISSION DEFINES WHAT A COMPANY PLANS TO BE. THE PROJECTED FUTURE ENVIRONMENT PROVIDES A FRAME OF REFERENCE FOR AN EXPRESSION OF THE COMPANY'S MISSION. A STATEMENT OF CORPORATE MISSION NEED ONLY INCLUDE ANSWERS TO THE FOLLOWING QUESTIONS:

- WHAT MARKETS WILL THE COMPANY SERVE?
- WHAT CUSTOMER NEEDS WILL BE MET? AND
- HOW WILL THE COMPANY PROVIDE THOSE SERVICES?
6. Define Strategic Objectives

- Specific targets
- Based on expected future
- Measurable benchmarks
- Commitment to implementation
DEFINE STRATEGIC OBJECTIVES

STRATEGIC OBJECTIVES ARE YARDSTICKS THAT INDICATE THE SUCCESS OF THE COMPANY IN FULFILLING ITS MISSION.

STRATEGIC OBJECTIVES SHOULD BE SPECIFIC AND REFLECT THE COMPANY'S PERCEPTIONS OF THE FUTURE BUSINESS ENVIRONMENT AND ITS OWN ABILITY TO PROSPER WITHIN THAT ENVIRONMENT.

THEY SHOULD PROVIDE MEASURABLE BENCHMARKS FOR TRACKING AND CONTROLLING PERFORMANCE IN ORDER TO IDENTIFY OR ANTICIPATE A NEED FOR MID-COURSE CORRECTIONS.

TO BE SUCCESSFUL, THEY MUST OBTAIN THE COMMITMENT OF THE PERSONNEL WHO ARE RESPONSIBLE FOR IMPLEMENTING STRATEGIES THAT ARE DIRECTED TOWARD THOSE OBJECTIVES.
7. Develop Alternative Strategies

- Wide perspective
- Broad involvement
- Quantitative measurements
DEVELOP ALTERNATIVE STRATEGIES

THE DEVELOPMENT OF STRATEGY FOCUSES
ON THE MEANS BY WHICH THE COMPANY CAN MEET
THE CHALLENGES POSED BY THE STRATEGIC
ISSUES AND ATTAIN ITS STRATEGIC
OBJECTIVES.

IN ORDER TO AVOID THE DANGER OF
PRESELECTING A LESS-THAN-OPTIMAL STRATEGY,
A NUMBER OF ALTERNATIVE STRATEGIES SHOULD
BE DEVELOPED FROM A VARIETY OF FUNCTIONAL
AREAS OF THE COMPANY. THE PROCESS OF
DEVELOPING A NUMBER OF OPTIONS, WHICH ARE
THEN SUBJECTED TO RIGOROUS AND UNBIASED
TESTING, WILL HELP BUILD CONFIDENCE AND
GENERATE A CONSENSUS IN THE FINAL CHOICE
OF A STRATEGY.

QUANTITATIVE OUTCOMES SHOULD BE
DEVELOPED SO THAT MEASUREMENTS CAN BE
MADE.
8. Test Strategies Against Forecasts

- Simulate outcomes
- Assume ranges
  - Traffic
  - Rates
  - Equipment utilization
  - Costs
- Project results
TEST STRATEGIES AGAINST FORECASTS

EACH STRATEGIC OPTION SHOULD POSSESS SUFFICIENT DETAIL SO THAT RESOURCE REQUIREMENTS, CASH FLOWS, AND MARKET POSITION ARE CLEARLY DEFINED OVER THE PLANNING PERIOD.

COMPUTER SIMULATION PROVIDES A HIGHLY EFFECTIVE MEANS OF INTEGRATING THE DIVERSE ELEMENTS PRODUCED BY THE STRATEGIC ANALYSIS. SIMULATION TESTS THE STRATEGIC OPTIONS UNDER PROJECTED ENVIRONMENTAL CONDITIONS OVER THE FULL SPAN OF VARIABLES DURING THE PLANNING PERIOD. ASSUMPTIONS ON FUTURE TRAFFIC LEVELS, RATES, EQUIPMENT UTILIZATION, AND OPERATING COSTS CAN BE LOADED INTO AN INTERACTIVE COMPUTER MODEL TO TEST THE RANGE OF OUTCOMES.

IN THE PROCESS OF TESTING AND EVALUATION, IT IS POSSIBLE THAT ADDITIONAL STRATEGIC ISSUES MAY EMERGE, REQUIRING A LOOP BACK TO THE DEVELOPMENT OR REFINEMENT OF FURTHER STRATEGIES TO DEAL WITH THE NEW ISSUES.
9. **Select Strategies Against Criteria**

- Financial performance
- Market share
- Flexibility of response
- Minimal downside risk
- Resource utilization
SELECT STRATEGIES AGAINST CRITERIA

THE PROJECTED PERFORMANCE OF EACH OF THE STRATEGIC ALTERNATIVES SHOULD BE ASSESSED AGAINST SELECTED CRITERIA, SUCH AS FINANCIAL MEASURES OF INTERNAL RATE OF RETURN, MARKET SHARE, EQUIPMENT UTILIZATION STANDARDS, AND OTHER REPORTED RESULTS.

OTHER CRITERIA INCLUDE CONSISTENCY WITH STRATEGIC OBJECTIVES, FLEXIBILITY OF RESPONSE TO UNFORESEEN CHANGES IN THE ENVIRONMENT, MINIMIZATION OF DOWNSIDE RISK, AND EFFECTIVE UTILIZATION OF HUMAN AND CAPITAL RESOURCES.
Phase III
Make Strategic Plans

10 COMMUNICATE TO ORGANIZATION
11 DEVELOP DETAILED PLANS
12 IMPLEMENT
13 MONITOR PERFORMANCE AGAINST OBJECTIVES
14 RECOMMENCE PLANNING CYCLE
PHASE III: MAKE STRATEGIC PLANS

THE THIRD AND FINAL PHASE OF THE PLANNING PROCESS CULMINATES IN A PLAN WHICH IS BOTH COMPREHENSIVE AND CAPABLE OF IMPLEMENTATION. OF PRIMARY IMPORTANCE IS THE COMMUNICATION OF THE UNDERLYING ASSUMPTIONS AS WELL AS THE DETAILS OF THE STRATEGIC DECISION TO ALL THOSE CONCERNED WITH ITS IMPLEMENTATION.
10. Communicate to Organization

- Involve middle management
- Describe
  - Objectives
  - Assumptions
  - Benefits
- Listen
COMMUNICATE TO ORGANIZATION

RESPONSIBILITY MUST BE CLEARLY GIVEN TO THOSE EXPECTED TO CARRY OUT THE STRATEGY. MANY OF THESE INDIVIDUALS MAY ALREADY HAVE PARTICIPATED IN THE DEVELOPMENT OF THE STRATEGY. THEIR INVOLVEMENT WILL SIGNIFICANTLY EASE THE PROCESS AT THIS CRITICAL STAGE BY INSTILLING CONFIDENCE TO OTHER MEMBERS OF THE COMPANY IN THE SELECTED STRATEGY.

ABOVE ALL, LISTEN TO THE FEEDBACK FROM YOUR MANAGERS.
11. Develop Detailed Plans

- Marketing
- Competitive
- Operations/service
- Financial
- Organizational/personnel development
- Corporate development
DEVELOPED DETAILED PLANS

A series of detailed business plans will transform the strategy from the abstract to the concrete. These plans can be integral parts of formal planning documents, such as five-year and annual plans. These plans include:

- **The Marketing Plan** should identify and prioritize specific customer needs to be served and where sales efforts will be focused.
- **The Competitive Plan** should develop the specific actions the organization should take to forestall, bypass, overwhelm, or co-opt any competitive actions that could prove damaging to the strategic plan.
- **The Operations/Service Plan** should detail how the organization will carry out its strategy to meet the development of services called for in the strategy.
- **The Financial Plan** should include short-term detail from which budgets and financial controls can be developed.
- **The Organizational/Personnel Development Plan** should describe how human resources will be developed.
- **The Corporate Development Plan** should synchronize the needs and the contributions of the barge line with those of the rest of any multi-business unit corporation.
12. Implement

- Proceed according to plan
- Analyze alternatives
- Vary plan when appropriate
IMPLEMENT

AN ESTABLISHED PLANNING SYSTEM PROVIDES A CAPABILITY TO RESPOND QUICKLY TO MEET THE CHALLENGE OF SHORT-TERM CRISIS AS WELL AS LONG-TERM PLANNING NEEDS. QUICK REACTIONS ARE BUILT INTO THE SYSTEM THROUGH THE EARLY-WARNING SENSORS INHERENT IN THE CONTINUOUS PROCESS OF COLLECTING AND ANALYZING STRATEGIC INFORMATION. ADDITIONALLY, MANAGEMENT WILL HAVE BECOME EXPERIENCED IN INTERPRETING AND ACTING UPON THE ANALYSIS OF STRATEGIC INFORMATION.

THE EXISTENCE OF A STRATEGIC PLAN ALSO HELPS ENSURE THAT SHORT-TERM DECISIONS DO NOT OVERCORRECT THE COMPANY'S COURSE IN MOMENTS OF CRISIS SO THAT ALL DECISIONS ARE MADE IN LIGHT OF LONGER-TERM GOALS AND OBJECTIVES.
13. Monitor Performance Against Objectives

- Quantitative yardsticks
- Monitor external events
  - Markets
  - Competitors
  - Other factors
- Monitor performance
  - Sales
  - Operations
  - Costs
MONITORING PERFORMANCE AGAINST OBJECTIVES

YARDSTICKS ARE USED TO GAUGE AND MONITOR PROGRESS. THESE MEASUREMENTS OF EXTERNAL EVENTS AND INTERNAL PERFORMANCE PROVIDE AN EARLY-WARNING SYSTEM AS WELL AS A SET OF SIGNPOSTS FOR STRATEGIC DIRECTION.

SHOULD THE ENVIRONMENT ALTER SO THAT THE ORIGINAL STRATEGIC PLAN BECOMES UNWORKABLE, THE YARDSTICKS PROVIDE AN EARLY INDICATION OF ANY MAJOR DIFFERENCES BETWEEN PLAN AND REALITY.
14. Recomence Planning Cycle

- Match to annual budget cycle
- Refine analytical techniques
- Revise measurements
- Integrate process
RECOMMENCE PLANNING CYCLE

THE PROCESS CONTINUES DURING THE NEXT ANNUAL CYCLE WHEN IMPROVEMENTS ARE MADE IN BOTH ANALYSIS AND MEASUREMENTS.


A STRATEGIC PLANNING SYSTEM CAN PROVIDE TREMENDOUS ASSISTANCE TO THE MANAGERS OF A BARGE LINE FOR EFFECTIVE DECISION MAKING. THE MAIN ASSETS OF SUCH A SYSTEM INCLUDE:

- THE GREATER DEPTH AND PERSPECTIVE IT ADDS TO A COMPANY'S UNDERSTANDING OF THE ENVIRONMENT;
- THE INCREASED COMMUNICATION IT CREATES BETWEEN PEOPLE WITHIN THE COMPANY IN THE EXPRESSION OF OBJECTIVES,
- THE SENSING OF NEEDS, AND
- THE DEVELOPMENT OF STRATEGIES.

FINALLY, IT RESULTS IN THE COORDINATION OF ALL THE COMPANY'S RESOURCES INTO A CONSENSUS-BASED STRATEGY WHICH EFFECTIVELY Positions THE COMPANY TO PROSPER IN THE FUTURE.
Implementing the Strategic Planning Process

L.E. Sutton

TRB/AWO Midyear Meeting
August 13, 1984

DRAVO-MECHLING CORPORATION
TEMPLE, BARKER & SLOANE, INC.
Strategic Planning Phases

PHASE I
Analyze Environments

PHASE II
Develop Strategies

PHASE III
Make Strategic Plans
Participation in the Planning Process

Phase I  Analysis of Environments
  • Company staff -- minor
  • Consultants -- major

Phase II  Strategy Development
  • Company staff -- major
  • Consultants -- minor

Phase III  Strategic Plans
  • Company staff -- major
  • Consultants -- none
IN PHASE I, ANALYSES OF THE EXTERNAL ENVIRONMENTS, OUR COMPANY STAFF HAD MINOR INVOLVEMENT AND THE PRIMARY RESPONSIBILITY FELL TO THE CONSULTANTS.

IN PHASE II, STRATEGY DEVELOPMENT, COMPANY INVOLVEMENT WAS MAJOR WITH THE CONSULTANTS SERVING AS CATALYSTS CHALLENGING US AND INSURING THAT WE DIDN'T SELL OURSELVES SHORT, OR SET UNREACHABLE GOALS.

IN PHASE III, ACTUAL DEVELOPMENT AND RECORDING OF THE PLANS, ALL THE WORK WAS IN COMPANY.
Phase I

Analyze Environments

ANALYZE EXTERNAL ENVIRONMENTS
- Industry
- Market
- Competitors
- Legal/regulatory
- Technology
- Other modes

ASSESS INTERNAL STRENGTHS AND WEAKNESSES
- Service
- Marketing
- Equipment
- Costs
- Financial
- Information
- Personnel

DEVELOP FORECASTS
- Demand
- Supply
- Market position
- Costs
- Rates
Analyze
External Environments

- Limited industry data sources
  - Annual reports
  - Former employees
  - Customers
  - Government reports and studies
AS I SAID EARLIER AND AS MANY OF YOU KNOW, DATA ON THE INLAND WATERWAYS INDUSTRY IS EXTREMELY LIMITED. INCIDENTALLY, YOUR CHAIRMAN INTENDS TO UNDERTAKE A PROJECT WHICH WILL CORRECT SOME OF THIS DEFICIENCY. BUT UNTIL HE DOES, YOU SCRONGE THIS DATA FROM EVERY SOURCE YOU CAN.
Analyze

External Environments

- Market information
  - Salesmen
  - Trade publications
  - Call session
  - Customers
Analyze

External Environments

- Legal/regulatory and technological
  - AWO, WTA, NWC
  - Equipment suppliers
  - Trade publications
INDUSTRY ORGANIZATIONS LIKE THE AMERICAN WATERWAY OPERATORS, WATER TRANSPORT ASSOCIATION, AND THE NATIONAL WATERWAY CONFERENCE ARE ALSO GOOD SOURCES OF INDUSTRY DATA.

INCIDENTALLY, THE NATIONAL WATERWAY CONFERENCE ANNUAL MEETING IS IN NASHVILLE, SEPTEMBER 19 THROUGH 21ST. I JUST HAPPENED TO HAVE SOME REGISTRATION FORMS WITH ME IN CASE YOU ARE INTERESTED.
Assess Internal Strengths and Weaknesses

- Compare to competitors
  - Service
  - Equipment
  - Costs
  - Financial performance
  - Information systems
  - Management and personnel
- Survey shippers
ASSESSING INTERNAL STRENGTHS AND WEAKNESSES SEEMS EASY BUT IT ISN'T.

THE CONSULTANTS HAD TO PROD US ALONG HERE. WE ADDED A SHIPPER SURVEY TO FIND OUT WHAT OUR CUSTOMERS THOUGHT OF US.
Shipper Survey

- Selected customers and non-customers
- Asked different questions to each type of shipper
  - Grain
  - Coal
  - Other dry bulk
  - Liquid
  - Regulated
ACTUALLY, WE SURVEYED BOTH CUSTOMERS AND NON-Customers. WE SEGREGATED THE CUSTOMERS BY COMMODITY.
Shipper Survey

- Did not identify our company
- Listed five to eight carriers for comparison
- Found shippers willing to talk
TO INSURE OBJECTIVE ANSWERS, WE DID NOT IDENTIFY OUR COMPANY. WE ASKED THE
RESPONDENTS TO COMPARE US TO OUR COMPETITORS. WE FOUND MOST SHIPPERS WILLING TO TALK.
Typical Survey Question

Of the following barge lines, which do you think provides the best quality barges?
HERE IS A TYPICAL QUESTION: "OF THE FOLLOWING BARGE LINES, WHICH DO YOU THINK PROVIDES THE BEST QUALITY BARGES?"
Topics Covered in Customer Survey

- Overall service
- Delivering empty barges where and when needed
- Quality of barges
- Keeping shipper advised of location
- Solving problems
- Competitive rates
WE ASKED ABOUT:

--OVERALL SERVICE

--WERE EMPTY BARGES DELIVERED WHERE AND WHEN THEY WERE NEEDED?

--THE QUALITY OF THE BARGES

--WAS THE SHIPPER KEPT ADVISED ON THE LOCATION OF THE CARGO?

--HOW GOOD WAS EACH COMPANY AT SOLVING PROBLEMS?

--WHICH COMPANIES HAD THE MOST COMPETITIVE RATES?
Results of Customer Survey

- Overall
  - Dravo consistently better than average
  - Proved that customers had better opinion of our service than we had

- Grain
  - Rates are market-determined, therefore
  - Level of service counts

- Coal
  - Shippers concerned with condition of most carriers' equipment
WE FOUND, AS WE EXPECTED, THAT DRAVO MECHLING WAS PERCEIVED AS BETTER THAN AVERAGE. WHAT WE DIDN'T EXPECT WAS THAT OUR CUSTOMERS THOUGHT WE WERE BETTER THAN WE THOUGHT WE WERE.

AFTER REFLECTION, WE REALIZED THE REASON. YOU HEAR MORE OFTEN FROM CUSTOMERS WHEN THERE ARE PROBLEMS, SO IT'S EASY FOR SALES PEOPLE AND MANAGEMENT TO UNDERRATE THE QUALITY OF THEIR OWN SERVICE.

GRAIN SHIPPERS SAID THAT RATES WERE DETERMINED BY THE MARKET, SO SERVICE WAS IMPORTANT BUT NOT LIKELY TO BE REFLECTED IN THE RATE.

COAL SHIPPERS WERE CONCERNED BY THE CONDITION OF MOST CARRIERS' EQUIPMENT. THIS WAS ANOTHER AREA OF SURPRISE FOR US. OUR OPEN HOPPER FLEET IS OLDER THAN THE INDUSTRY AVERAGE, BUT THE CUSTOMERS DIDN'T FIND IT TO BE IN ANY WORSE SHAPE THAN OUR COMPETITORS.
Results of Customer Survey

- Drybulk
  - Shippers want to know where their cargoes are

- Liquid
  - Service considered most important

- Regulated
  - Customers reluctant to differentiate carriers
SERVICE, SERVICE, SERVICE. A CONSISTENT THEME THROUGHOUT THE SURVEY.
Phase II
Develop Strategies

4. Define Strategic Issues
6. Define Mission
8. Test Strategies Against Forecasts
7. Develop Alternative Strategies
9. Select Strategies
Strategy Development

- Defined mission and strategic objectives
  - Began with small core of top management
  - Distributed to all top and middle management for selection and ranking
  - Developed consensus
WE BEGAN WITH A SMALL CORE OF TOP MANAGEMENT, MYSELF AND THOSE REPORTING TO ME. WE DISTRIBUTED THOSE IDEAS TO THE NEXT LEVEL FOR RANKING. WE DEVELOPED CONSSENSUS.
Strategy Development

- Defined and tested alternative strategies
  - Small group of participants
  - Computer simulation to calculate impacts
  - Fit with corporate planning requirements
WE DEFINED AND TESTED THE ALTERNATIVES, THEN MADE OUR STRATEGY FIT THE CORPORATE PLANNING REQUIREMENTS.
Phase III
Make Strategic Plans

10 COMMUNICATE TO ORGANIZATION

11 DEVELOP DETAILED PLANS

12 IMPLEMENT

13 MONITOR PERFORMANCE AGAINST OBJECTIVES

14 RECOMMENCE PLANNING CYCLE
ONCE ACCEPTED BY THE CORPORATION, THE IMPORTANT WORK BEGAN.
Implementation

- Communicated mission, objectives, and strategies to middle- and lower-management levels
- Developed plans
  - Marketing
  - Operations
  - Information systems
  - Organization
WE DEVELOPED DETAILED PLANS BY DIVISION.
WE COMMUNICATED THE MISSION, OBJECTIVES, AND STRATEGIES THROUGHOUT THE ORGANIZATION.
Implementation

- All division managers used company mission and objectives to write division goals
- All managers used division goals to write personal job descriptions
ALL MANAGERS WROTE GOALS FOR THEIR DIVISIONS OR DEPARTMENTS. THEN ALL MANAGERS USED THESE GOALS TO WRITE THEIR OWN JOB DESCRIPTIONS. MANY OTHER EMPLOYEES ALSO WROTE OR UPDATED JOB DESCRIPTIONS. THIS WAS DONE TO INSURE THAT INDIVIDUAL GOALS REFLECTED CORPORATE GOALS.
Performance Monitoring

- Established information systems to measure
  - Barge trip profitability
  - Towboat utilization
  - Towing costs
  - Port service costs
  - Bookings
  - Revenues
  - Rates

- Quantitative, timely, and reliable indicators
THE FINAL PHASE AND REALLY MOST IMPORTANT WAS TO MONITOR PROGRESS AGAINST THE PLAN. YOU OBVIOUSLY MUST HAVE ADEQUATE INFORMATION SYSTEMS IN PLACE TO DO THIS.

ACTUALLY, WE FOUND OURS NEEDED IMPROVEMENT.

IN SUMMARY, STRATEGIC PLANNING IS A TOUGH PROJECT.

IT TAKES DISCIPLINE. IT TAKES TOP MANAGEMENT DEDICATION. IT TAKES A FORMAT.

IT'S THE FORMAT AND THE HOW-TO THAT WE'VE PROVIDED. EACH BARGE COMPANY WILL NOW HAVE TO PROVIDE ITS OWN DISCIPLINE AND DEDICATION.
END

FILMED

3-85

DTIC