Business Development and Marketing (Chap. 21)

- Marketing

  Value to Customers and Benefit the Railroad

  ICC – 1897

  What the Traffic Will Bear / Market Pricing

  ICC Oppressive

  Staggers Act of 1980 – Free Market

  STB Formed in 1995 – ICC Terminated

- Business Development Functions
    - Cost and Price Analysis
    - Market Research
    - Customer Service
    - Service Design
- Tariffs and Contracts
    - Negotiate
    - Contract Pricing

- The Customer Viewpoint

  Inventory Costs

  Working Capital

  Arrival Times

- The New Realities

  Customer Knowledge

  Service Delivery System

  Renew and Replace

  Customer Service

- The Short Line Railroad Advantage

  Preserve

  Custom Service

  Community

  Options

Railway Operations (Chap. 22)

- The Big Department

85 percent of Railroad Employees

Transportation and Engineering and Mechanical

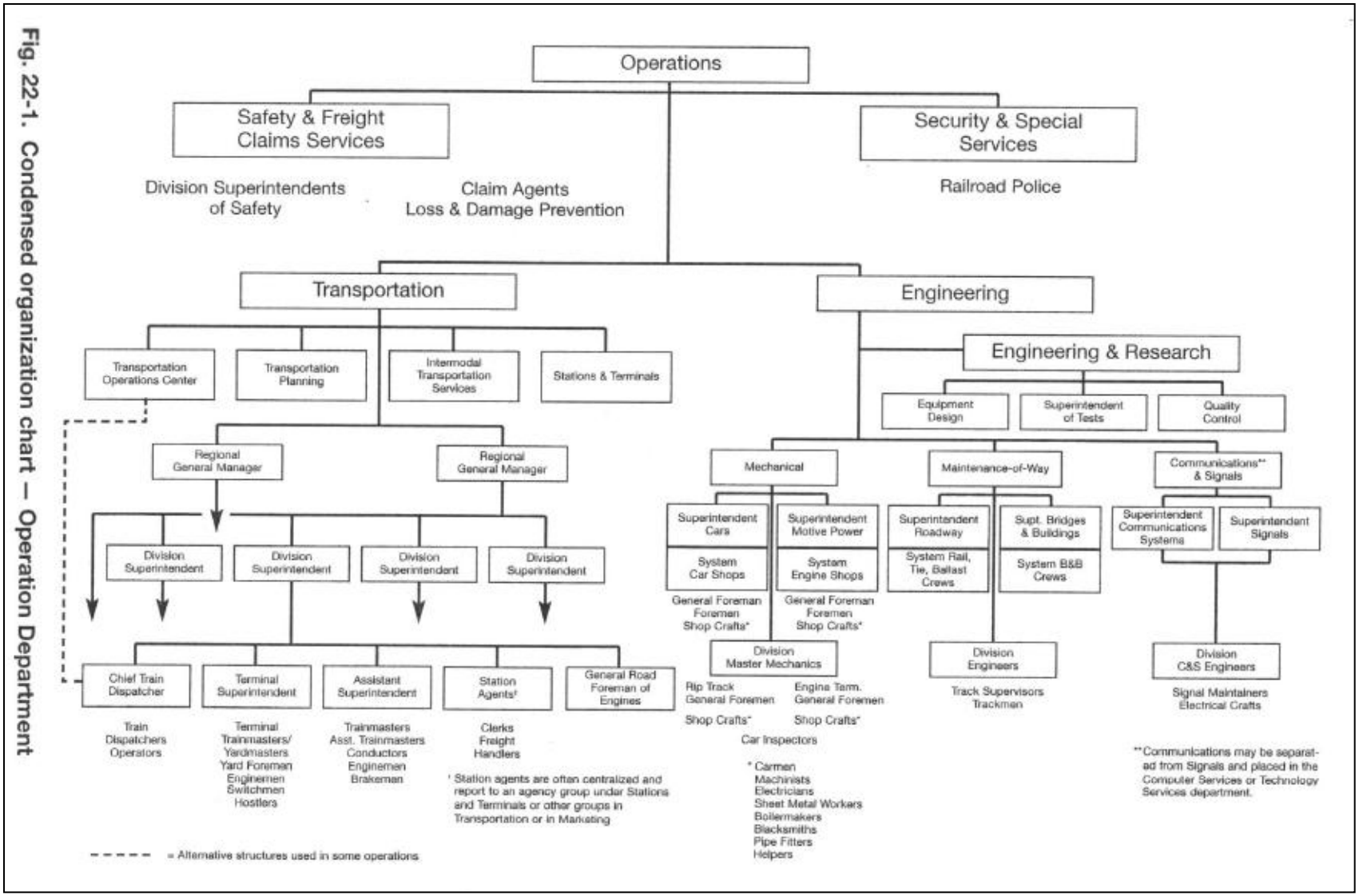

Fig. 22-1. Condensed organization chart — Operation Department

- Military Structure

- Field Staff Structure

  General Manager/Superintendant

  Division Engineer

  Division Master Mechanic

  Division C&S Engineer

- Railroad Safety and Accident/Incident Reporting

  Promote Safety and Lowering Employee and Public Injuries

  Reports – FRA and OSHA and ???

  Trends ?????

- Train Accidents/Incidents
  - Reportable – Threshold ~ $9000
  - Train Accident
  - Train Incident
  - Non-Train Incident
- FRA Grouping
  - Train Accidents
  - Highway-Rail Crossing Incidents
  - Other Incidents

- Railway Safety Performance

Much Improved – Injuries and Fatalities

Table 22-1. Employee injury – illness rates in various industries

Industry Category	Reportable injuries/illnesses per 100 employees			
	1976	1984	1994	2004
Railroad	10.1	8.7	5.1	2.7
Trucking, warehousing	15.1	14.5	14.8	7.0
Water transportation	15.2	13.2	9.5	4.4
Transportation by air	14.2	13.1	13.3	10.1
Construction	15.3	15.5	11.8	6.4
All manufacturing	13.2	10.6	12.2	6.6
All private-sector employment	9.2	8.0	8.4	4.8

Source: Bureau of Labor Statistics

Note: Trucking, warehousing statistic for 2004 is a combination of trucking and warehousing.

Table 22-2. Major sources of employee lost time[1]

Activity	Count	Percentage
Walking	882	14.9
Standing	422	7.1
Riding	407	6.9
Operating	240	4.1
Sitting	217	3.7
Getting off	187	3.2
Stepping down	172	2.9
Using hand tool	167	2.8
Lifting equipment (tools, parts, etc.)	144	2.4
Lining switches	139	2.3
Opening	134	2.3
Lifting other material	130	2.2
Pulling	130	2.2
Driving (motor vehicle, forklift, etc.)	101	1.7
Repairing	100	1.7
Descending	95	1.6
Climbing over/on	93	1.6
Hand brakes, applying	92	1.6
Handling, other	83	1.4
Cleaning	82	1.4
Loading/unloading	80	1.4
Closing	79	1.3
Bending, stooping	78	1.3
Getting on	72	1.2
Adjusting, other	69	1.2
Spiking (installation/removal)	68	1.1
Hand brakes, releasing	68	1.1
Other (Narrative must be provided)	67	1.1
Inspecting	62	1
Total - All Causes	**5,923**	**100**

[1] The number of cases that resulted in employees being absent for work at least one day
Source: Railroad Safety Statistics Annual Report 2004 – FRA

Table 22-3. Fatality rates from train accidents and other causes

Train Accidents Excluding Highway-Rail Crossing (HRC) Incidents

Type	Person	Fatalities by year											
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
A	Worker on duty (rr empl)	13	8	10	14	11	3	7	4	4	3	2	7
B	Employee not on duty	2	-	1	-	-	-	-	-	-	-	-	-
C	Passenger on train	49	2	-	9	1	-		-	1	7	-	1
D	Nontrespasser	-	2	-	-	-	-	1	3	-	-	-	-
E	Trespasser	3	-	3	2	4	1	1	2	1	4	2	1
F	Worker on duty (contractor)	-	-	-	-	-	-		-	-	-	-	1
G	Contractor (other)	-	-	-	-	-	-	-	-	-	-	-	-
J	Nontrespasser, off rr prop	-	-	-	-	1	-	0	1	-	1	-	3
Total		67	12	14	25	17	4	9	10	6	15	4	13

Grand Total — All Causes

Type	Person	Fatalities by year											
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
A	Worker on duty (rr empl)	47	31	34	33	37	27	31	24	22	20	19	25
B	Employee not on duty	4	-	2	-	-	2	-	1	-	1	1	-
C	Passenger on train	58	5	-	12	6	4	14	4	3	7	3	3
D	Nontrespasser	489	505	443	365	362	324	304	332	269	266	204	232
E	Trespasser	675	682	660	620	646	644	570	570	673	646	634	628
F	Worker on duty (contractor)	6	3	7	9	6	2	2	-	2	3	3	2
G	Contractor (other)	-	-	-	-	5	3	10	3	2	7	2	2
H	Worker on duty (volunteer)	-	-	-	-	-	-	-	-	-	-	-	-
I	Volunteer (other)	-	-	-	-	-	-	-	-	-	-	-	-
J	Nontrespasser, off rr prop	-	-	-	-	1	2	1	3	-	1	1	6
Total		1,279	1,226	1,146	1,039	1,063	1,008	932	937	971	951	867	898

Source: Railroad Safety Statistics 2004 Annual Report and *Railroad Safety Statistics 2000 Annual Report* – FRA

Table 22-4. Accident/Incident Rate

Year	Rate*	Year	Rate
1994	19.14	2000	13.94
1995	16.60	2001	13.56
1996	15.05	2002	12.18
1997	14.14	2003	11.95
1998	13.78	2004	11.59
1999	13.72		

*Using this equation: (Total accidents and incidents reported) x 1,000,000 / (train miles + train hours)

Compiled from Federal Railroad Administration website, Rail Equipment Accidents, 2004

- Number and Cost of Train Accidents – Increased

Table 22-5. Causes of FRA Accidents-Incidents (1994)

	Human Factors	Equipment Failure	Track Defects	Other	Total Number Train Accidents	Total Damage to RR Property
Collisions	218	10	7	32	267	$31M
Derailments	451	270	897	267	1,185	$125M
Other	263	29	47	103	442	$13M
Highway Grade Crossing				194	194	$12M
Total Number Train Accidents	932	309	951	596	2,788	
Total Damage to RR Property	$44M	$32M	$55M	$49M	-	$181M

Source: Compiled from Railroad Accident-Incident report, FRA - 1994

Table 22-6. Causes of FRA Accidents-Incidents (2004)

	Human Factors	Equipment Failure	Track Defects	Other	Total Number Train Accidents	Total Damage to RR Property
Collisions	399	16	6	32	453	$35M
Derailments	888	338	1126	404	2,756	$260M
Other	590	127	52	228	997	$31M
Highway Grade Crossing	1			272	273	$13M
Total Number Train Accidents	1,878	481	1,184	936	4,479	
Total Damage to RR Property	$90M	$58M	$127M	$64M	-	$339M

Source: Compiled from Railroad Accident-Incident report, FRA - 2004

- FELA

  Tort Based

  Difference from Workmen's Comp.

- Freight Claims (Loss and Damage)

  Approximately 0.3 percent of Revenue