RAILROAD ACCIDENT INVESTIGATION

REPORT NO. 4149

ILLINOIS CENTRAL RAILROAD COMPANY

INDIAN OAKS, ILLINOIS

JANUARY 17, 1969

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION
WASHINGTON, D. C. 20591

Summary

DATE:	January 17, 1969	
RAILROAD:	Illinois Central	
LOCATION:	Indian Oaks, Ill	
KIND OF ACCIDENT:	Head-end collision	
TRAINS:	Passenger	Freight
TRAIN NUMBERS:	25	Extra 9192 North
LOCOMOTIVES:	Diesel-electric units 4015, 2022, 4004	Diesel-electri units 9192, 3057
CONSISTS:	13 cars	84 cars, caboo
SPEEDS:	70 m p.h.	Standing
OPERATION:	Signal indications	
TRACKS:	Three; tangent; average 0 32 percent descending grade northward	
WEATHER:	Foggy	
TIME:	12:39 a m.	
CASUALTIES:	3 killed; 45 injured	
CAUSE:	Failure of the engineer to operate the freight train in accordance with restrictive signal indications, resulting in the front of the train passing a stop-signal at the end of a three-track line and stopping on another main track in front of the closely approaching passenger train	

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

RAILROAD SAFETY BOARD

RAILROAD ACCIDENT INVESTIGATION

REPORT NO. 4149

ILLINOIS CENTRAL RAILROAD COMPANY

JANUARY 17, 1969

Synopsis

On January 17, 1969, a head-end collision occurred between a passenger train and a freight train on the Illinois Central Railroad at Indian Oaks, Illinois, resulting in death to three train employees and in injury to forty-five passengers, train employees, and railway post office employees

The accident was caused by failure of the engineer to operate the freight train in accordance with restrictive signal indications, resulting in the front of the train passing a stop-signal at the end of a three-track line and stopping on another main track in front of the closely approaching passenger train

Significant causal factors were (a) the prevailing fog condition which restricted the freight-train engineer's view of the stop signal (b) the KX operator's improper use of the radio to inform the freight-train engineer that the route had been established for his train to enter the main track on which the collision occurred (c) the KX operator's erroneous information concerning establishment of the afore-

said route (d) the freight-train engineer's improper reliance on the information received by radio from the KX operator (e) existence of the common practice employed by train crews and station operators to ask and/or advise by radio the aspects displayed by signals and (f) the lack of adequate action by the carrier to determine and enforce compliance with its rules governing the use of radios

Location and Method of Operation

The accident occurred on that part of the Illinois Central Railroad between Chicago and Champaign, Ill , a distance of 127 8 miles Between Kankakee Jct and Indian Oaks, 72 5 and 77 0 miles north of Champaign, the railroad is a three-track line From the west, the main tracks are designated as Nos 1, 2 and 3

At Indian Oaks, the north end of track No 3 converges with track No 2 at a switch 1 9 miles north of the station Northward from this switch, the railroad is a double-track line composed of tracks No 1 and No. 2

Trains moving in either direction on tracks No 1 and No 2 operate by signal indications of a traffic control system Northbound trains on track No 3 operate by signal indications of an automatic block-signal system

The collision occurred on track No. 2 at Indian Oaks, at the point of the switch connecting the north end of track No 3 to track No 2

Time and Weather

The collision took place at 12:39 a m , under foggy weather conditions which restricted visibility to approximately 1,000 feet

Authorized Train Speeds

The maximum authorized speeds for passenger and freight trains in the collision area are 79 and 60 m p h , respectively

Tracks

Except for the turnout where track No 3 converges with track No 2 at Indian Oaks, the main tracks are straight for more than one mile north and south of the collision point In this area the average grade is 0.32 percent descending northward

Signals

Automatic signal 3-526 and controlled signal 4L, governing northbound movements from track No 3 to track No 2 at Indian Oaks, are 3 1 miles and 462 feet south of the switch connecting those tracks, respectively Automatic signal 2-481 and controlled signal 4R, governing southbound movements on track No 2, are 1 4 miles and 9 feet north of the aforesaid switch, respectively

The signals are of the continuously-lighted color-light type, and are on signal bridges spanning the main tracks

The signal aspects applicable to this report, and the corresponding indications and names, are as follows:

Signal	Aspect	Indication	Name
3-526	Yellow-over-Red	Proceed; Preparing to Stop at next signal Train exceeding medium speed must at once reduce to that speed	Approach
4L	Red-over-Red-over-Red	Stop	Stop
2-481	Green	Proceed	Clear
4R	Green-over-Red Red-over-Red	Proceed Stop	Clear Stop

Signals 4L and 4R, and the switch connecting the north end of track No 3 to track No 2 at Indian Oaks, are controlled by the train dispatcher at Champaign The circuits are so arranged that when the dispatcher has established the route for a southbound train to proceed on track No 2 at Indian Oaks, signals 2-481 and 4R display Clear aspects, and signals 3-526 and 4L display Approach and Stop aspects, respectively If the route is so established and the front of a northbound train on track No 3 passes signal 4L, the aspect displayed by signal 4R changes to Stop

Carrier's Operating Rules

Medium Speed - A speed not exceeding thirty miles per hour

Fixed Signal - A signal of fixed location indicating a condition affecting the movement of train or engine

98 Trains and engines must approach the end of two or more tracks *** prepared to stop, unless the switches are properly lined, signals indicate proceed, and track is clear ***

Train Dispatchers

802 They should bear in mind that many matters clear to them may not be fully understood by operators, conductors, engineers and others, and give instructions in such a manner that they will not be misunderstood

Enginemen

993 During foggy or stormy weather they must take extraordinary precautions, both at switches and at all places where authority to proceed depends upon signals

Carrier's Radio Rules and Instructions

20 Crews on trains must not ask and station employees must not advise by radio the position of any fixed signal

21 Employees in train service shall identify themselves by prefacing their call with the railroad name; as example, "Illinois Central Conductor No. 77 calling engineer" *** Employee to whom call is directed will acknowledge, as example, "This is the Engineer No. 62 "

Circumstances Prior to Accident

Train No. 25

This was a southbound first-class passenger train consisting of 3 car-body type diesel-electric units, 1 railway post-office car, 1 mail-storage car, 1 baggage-express car and 10 coaches. It left Chicago at 11:45 p.m., the day before the accident, after receiving the prescribed brake test. Approximately 35 minutes later, the dispatcher established the route for No 25 to cross over from track No. 1 to track No. 2 at Stuenkel, 31.6 miles south of Chicago, and to continue southward on track No 2 to Kankakee Jct He did this due to a southbound freight train being stopped on track No 1 at Kankakee Jct.

No 25 passed Stuenkel at 12:23 a m. Approximately 12 minutes later, it passed Manteno, 15 1 miles south of Stuenkel and continued southward on track No 2 toward Indian Oaks and Kankakee Jct. The engineer and fireman were in the control compartment at the front of the first diesel-electric unit; the conductor, train baggageman, and flagman were at various locations in the cars

Train Extra 9192 North

This was a northbound freight train It left Champaign at 10:30 p m the day before the accident after receiving the prescribed brake test. Approximately 1 hour 30 minutes later, it stopped on track No. 3 at Kankakee Jct to set out cars When this was accomplished the train, consisting of 2 road-switcher type diesel-electric units, 84 cars and a caboose (5858 tons), proceeded northward on track No. 3, passing the Kankakee Jct. interlocking station at 12:29 a m The engineer, fireman and front brakeman were in the control compartment at the front of the first diesel-electric unit; the conductor and flagman were in the caboose.

The Accident

Train No. 25

According to its surviving crew members, No 25 was moving about 70 m p h as it approached Indian Oaks on track No 2 In the light of information developed in the investigation, signal 2-481 evidently was displaying a Clear aspect when the front of No 25 passed it, and the enginemen were rightfully assuming they would see signal 4R displaying a proceed aspect when it came into view through the fog However, while No 25 was moving southward in the block of signal 2-481, Extra 9192 North moved northward on track No 3 beyond signal 4L and fouled track No 2, causing the aspect displayed by signal 4R to change to Stop Apparently when No 25 reached a point about 1000 feet distant, its enginemen were able to see through the fog that Extra 9192 North was fouling track No 2 ahead and/or signal 4R came into the enginemens' view and they saw it was displaying a Stop aspect, instead of a proceed aspect as expected The engineer or fireman then applied the train brakes in emergency A few moments later, before its speed was reduced materially, No 25 struck the locomotive of Extra 9192 North at the point of the power-operated switch connecting the north end of track No 3 to track No 2 at Indian Oaks

The train baggageman and flagman of No 25 heard the brakes of their train apply in emergency moments before the collision The conductor was unaware of anything being wrong before the collision

Train Extra 9192 North

Soon after passing the Kankakee Jct interlocking station (KX), Extra 9192 North, moving northward on track No 3 and on a slightly ascending grade, neared signal 3-526 This signal is 3,0 miles south of signal 4L at Indian Oaks The fireman and front brakeman, the surviving crew members on the locomotive, said they and the engineer saw signal 3-526 displaying an Approach aspect when it came into view through the fog and called that aspect to each other Shortly thereafter, the engineer radioed the operator of the Kankakee Jct. interlocking (KX) and inquired as to whether the route was established at Indian Oaks for the train to proceed from track No 3 to track No 2 Both the fireman and front brakeman said that after a short interval the KX operator replied "You have the line up " They further said this indicated to them that the dispatcher had established the route for their train to proceed from track No 3 to track No 2 at Indian Oaks and signal 4L was displaying a proceed aspect

According to the front brakeman, Extra 9192 North passed signal 3-526 at a speed of approximately 26 m p h While moving in the block of that signal, the train reached the summit of the ascending grade and entered a descending grade, at a point 1 4 miles south of signal 4L About that

time, the engineer reduced power, apparently to avoid increasing speed on the descending grade beyond the 30 m p.h maximum speed authorized under the Approach aspect displayed by signal 3-526 However, due to assuming signal 4L would be seen to be displaying a proceed aspect when it came into view through the fog, he did not apply the train brakes to control the speed in such manner that the train would be prepared to stop short of that signal.

While the front of Extra 9192 North was moving in the vicinity of a rail-highway grade crossing located 969 feet south of signal 4L, this signal came into the view of the crew members on the locomotive and they saw it was displaying a Stop aspect, instead of a proceed aspect as anticipated The engineer promptly applied the train brakes in emergency Soon thereafter, while the train was reducing speed as a result of the emergency brake application, the front end passed signal 4L and stopped with the front of the locomotive at the point of the switch connecting track No 3 to track No. 2. According to the fireman and front brakeman, the engineer radioed the KX operator when the locomotive passed signal 4L and said "Thanks, now you've done (or we've done it), we've run the board"

As the train came to a stop, the front brakeman left his seat in the control compartment of the first diesel-electric unit, opened the door at the front of the compartment, and reached down for a fusee with the intention of providing protection for his train against any southbound train approaching on track No 2 When he looked up, he saw the headlight of No 25 closely approaching on track No 2 and saw that the brakes of No 25 were heavily applied Realizing a collision was imminent, he called a warning to the engineer and fireman. The front brakeman and the fireman then left the control compartment through the front door, hurriedly alighted from the east side of the locomotive, and ran to safety before the collision The engineer was in the control compartment, sounding the locomotive horn, when the fireman and front brakeman last saw him

Casualties

The engineer and fireman of No 25 and the engineer of Extra 9192 North were killed Of approximately 48 passengers on No. 25, five were seriously injured and twenty-nine were slightly injured In addition, the conductor, train baggageman, flagman and eight railway post office employees on No 25 were slightly injured.

Damages

Train No. 25

The entire train derailed It stopped with the front of the second diesel-electric unit 480 feet south of the collision point The first diesel-electric unit overturned and stopped on its right side 439 feet south of the collision point, in a field on the west side of the track structure

The remaining train equipment stopped upright in various positions as shown in the sketch at the end of this report

All three diesel-electric units and the first five cars were destroyed The sixth car was heavily damaged, the seventh car moderately damaged, and the remaining cars slightly damaged

Train Extra 9192 North

Both diesel-electric units and the first seven cars of this train derailed and stopped in various positions on or near the structure of the main tracks The locomotive units and four of the derailed cars were destroyed The other three derailed cars were heavily damaged

Tracks

Several hundred feet of the main tracks were destroyed or heavily damaged

Damage Cost

The total cost of damages to the equipment of both trains was estimated by the carrier to be about $667,850, apparently on a depreciated basis The carrier's estimate of the cost of damages to the main track structures was $13,097

KX Operator (Kankakee Jct. Interlocking)

According to the KX operator, the engineer of Extra 9192 North radioed him shortly after passing the Kankakee Jct interlocking station and said, "KX, tell the dispatcher to line us up at Indian Oaks or I will run the board " The operator said that he replied "All right," and that he then relayed the engineer's message to the dispatcher by telephone According to the operator, the dispatcher's reply to this message was, "I can't line him up because 25 is coming down track 2, 25 is by Manteno coming on 2 " The operator stated that before he could take any action after hearing the dispatcher's reply, the engineer of Extra 9192 North again radioed him and said, "KX, I just ran the board at the Oaks " He further stated that he immediately radioed the engineer of a train standing near Kankakee Jct and requested him to warn No 25 by radio of the situation at Indian Oaks, and that he then telephoned the dispatcher to advise him of the latest radio message received from the engineer of Extra 9192 North He said the telephone line went dead, as a result of the collision, while he was conversing with the dispatcher

The operator stated that he did not at any time inform the engineer of Extra 9192 North that the route was established for his train to proceed from track No 3 to track No 2 at Indian Oaks He further stated that it is a common practice for engineers of trains, particularly freight trains, to radio the Kankakee Jct interlocking station and inquire as to whether the route was established for their trains to

proceed He said that he acknowledged such requests, but never told engineers whether or not the routes had been established

Train Dispatcher

The dispatcher stated the KX operator telephoned him sometime before the accident and informed him that the engineer of Extra 9192 North had requested the route be established for his train to proceed from track No. 3 to track No 2 at Indian Oaks The dispatcher further said that upon hearing this he replied "okay" to the operator as an acknowledgement of receipt of the request, but not to imply the route would be established as requested According to his statements, the dispatcher did not at any time tell the KX operator that the route had been established for Extra 9192 North to proceed to track No 2 at Indian Oaks, or explain to him that No 25 was approaching Indian Oaks on track No 2

As Extra 9192 North approached signal 4L on track No. 3, the dispatcher was aware of the approximate location of the train due to the flashing of an indicator light on the traffic control machine He said that within a few seconds after this indicator light began to flash, the KX operator telephoned him again and informed him the train engineer had said "unless he got the signal at Indian Oaks he was going to run the signal," (meaning the front of the train would pass signal 4L regardless of whether it displayed a Stop or a proceed aspect). A few second later, according to the dispatcher, the indicator light for the switch connecting track No 2 and the north end of track No 3 at Indian Oaks began flashing This flashing light on the traffic control machine indicated to the dispatcher that something was wrong. Within 15 seconds after the switch indicator light began flashing, according to the dispatcher, some of his dispatching and communicating lines went out. He immediately realized this probably occurred because of a collision between No 25 and Extra 9192 North and took action to get rescue operations under way

Witnesses

Engineer of Train Standing Near Kankakee Jct.

This engineer said his locomotive was equipped with a radio and he overheard the radio communication between the KX operator and engineer of Extra 9192 North before the accident He said he heard the engineer request the route be established at Indian Oaks for his train to proceed to track No. 2 and, after a short pause, heard the operator reply "you've got it." Sometime later, he said, a voice was heard to say "Tell that dispatcher we got by the board (signal 4L)." A few seconds later, according to the engineer of the standing train, the KX operator called No. 25 and Extra 9192 North by radio, but there was no answer. He stated that he then received a request from the KX operator to call those trains, but received no answer after making the calls.

The engineer of the standing train said it was a common occurrence for train crews to call station operators by radio and request routes be established for their trains, but the day of the accident was the first time he ever heard an operator inform a crew member making such request that the route was established

Yard Conductor

While No. 25 and Extra 9192 North were approaching the collision point, a yard conductor was in the yard office at Kankakee, 0 6 mile south of Kankakee Jct , preparing to radio the KX operator and arrange for movement of his yard locomotive through the Kankakee Jct interlocking He overheard the KX operator and the engineer of Extra 9192 North communicating by radio before the collision Upon learning of the collision, the conductor made notes of what he had heard, feeling accurate information relating thereto might be important in view of the circumstances involved.

According to his statements, the yard conductor overheard the engineer of Extra 9192 North call the KX operator by radio and say "This is sure — —— dispatching, we haven't got the line up " He said the operator replied "Just a minute" and, about ten seconds later, further replied "You've got the line up." The yard conductor stated that sometime later, after being away from the yard office radio for a short period, he heard the engineer radio "Thanks KX, we don't have the line up, we just ran by the board."

The yard conductor further stated it was common practice for a train crew member to radio an interlocking station operator and inquire as to whether the route was established for the train to proceed According to his statements, operators usually replied to such inquiries by saying "You have it" or "I can't give it to you right now," depending upon the circumstances

Yard Engineer

A yard engineer at Kankakee stated that he had often heard operators and members of train crews exchange information on the radio, concerning establishment of routes and the indication of wayside signals He further stated that there have been many close calls as the result of incorrect radio information

Interlocking Operator

This operator said it was common practice for crews of approaching trains to call an interlocking station and request the operator to establish the route for movement of their trains through the interlocking According to this operator's statements, he usually replied by including information as to the aspect being displayed by the home interlocking signal involved

Other

On January 30, 1969, thirteen days after the collision, a FRA Inspector visited the Kankakee Jct interlocking station (KX) in the course of the accident investigation. During his stay in the station, the FRA Inspector heard a crew member of an approaching train call the station and inquire "Extra 3041, do we have the signal at KX?" The KX operator replied, "I can't tell you, you will have to see for yourself "

Train Crews' Hours of Service

Train No. 25

At the time of the accident, the engineer and fireman had been on duty 2 hours 9 minutes; the conductor, flagman, and baggageman had been on duty 1 hour 39 minutes All crew members had previously been off duty over 17 hours

Train Extra 9192 North

All the crew members had been on duty 2 hours 24 minutes at the time of the accident, after having been off duty more than 15 hours 45 minutes

Carrier's Personnel Records

The following information, taken from the carrier's records, relates to the employees most involved in the circumstances surrounding the accident.

Kankakee Interlocking Station (KX) Operator

The KX operator was 18½ years old He entered the carrier's service in April 1968 and began work as an operator on June 19, 1968, seven months before the accident His service record was clear

Train No. 25

The engineer and fireman of this train were 48 and 33 years old, respectively Their records were relatively free of detrimental information and did not reflect anything having a bearing on the collision at Indian Oaks

Train Extra 9192 North

The engineer, fireman, and front brakeman of this train were 52, 19 and 35 years old, respectively. The engineer entered service as a fireman in October 1943 and was promoted to engineer in February 1953 The fireman first entered the carrier's service in August 1967 The front brakeman first entered the carrier's service as a signal helper in December 1951, transferred to the position of brakeman in October 1952, and was promoted to conductor in June 1965

The records show that all three of these employees took and passed periodic physical re-examinations in 1966

The front brakeman's record was clear

The fireman's record was clear, except for disciplinary action taken against him in November 1967 in connection with failure of a freight train to stop at a stop-signal at the beginning of centralized traffic control territory on track No 2 at Kankakee, Illinois

The engineer's record shows that the only significant disciplinary action taken against him while employed as an engineer occurred in February 1967 In that cause, he was suspended for 45 days in connection with the operation of a southbound train on a northward main track without proper authority

Post-Accident Examinations

Blood samples were taken from the bodies of the enginemen of No 25 and the engineer of Extra 9192 North and were tested for carbon monoxide and alcohol content The tests produced negative results with respect to the enginemen of No 25

The tests revealed no trace of carbon monoxide in the blood of the engineer of Extra 9192 North However, a blood alcohol concentration of 45 mg (milligrams) per 100 ml (milliliters) was found Since blood alcohol concentration dissipates at the rate of about 15 mg per 100 ml hourly in the average person, it appears that when the engineer went on duty at Champaign, 2 hours 29 minutes before the accident, his blood alcohol concentration at that time was approximately 82 mg per 100 ml In this connection, some authorities and States, including Illinois, consider blood alcohol concentration of 100 mg or more per 100 ml in the driver of a highway vehicle as presumptive evidence of the driver being under the influence of intoxicating liquor

Analysis of Accident

Approximately 25 minutes before the accident, the dispatcher established the route for No 25 to proceed southward on track No 2 from Stuenkel to Kankakee Jct., causing the southward signals for track No 2, including signals 2-481 and 4R, to display Clear aspects. No. 25 was moving southward in the block of signal 2-481, in accordance with the carrier's rules, when the enginemen saw through the fog that Extra 9192 North was fouling track No 2 at the north end of track No 3 at Indian Oaks, and/or saw that signal 4R was displaying a Stop aspect. The engineer or fireman then applied the train brakes in emergency However, due to its speed at that time (about 70 m p h.) and to insufficient braking distance, No 25 was unable to reduce speed materially before it passed signal 4R and collided with Extra 9192 North

In view of the statements made by the train dispatcher, the surviving crew members on the locomotive of Extra 9192 North, and the employees who overheard radio conversations prior to the accident, considerable doubt is cast upon the accuracy of the KX operator's statements relating to his radio communications with the train dispatcher and the engineer of Extra 9192 North Based upon the statements made by other than the KX operator, it would appear that the actual sequence of events leading to the accident was as follows:

Extra 9192 North was moving northward on track No.3 at 25 to 30 m p.h when the crew members on the locomotive saw signal 3-526 come into view a short distance ahead and saw that it displayed an Approach aspect This indicated to the engineer that the train was required to approach the next signal (4L) prepared to stop, and that the route was not established at Indian Oaks for his train to proceed from track No. 3 to track No 2 While the locomotive was moving in the vicinity of signal 3-526, the engineer radioed the KX operator and complained about the route not being established at Indian Oaks for his train to enter track No 2 He then requested the route be so established

The KX operator relayed the engineer's request to the dispatcher by telephone, and the dispatcher acknowledged receipt of the request by replying "Okay." The ambiguousness of this reply, under the circumstances, led the operator to believe that the dispatcher had assented to the engineer's request and would immediately establish the route for Extra 9192 North to proceed from track No. 3 to track No. 2 at Indian Oaks The KX operator then radioed the engineer, and in effect, informed him the dispatcher had established the route at Indian Oaks, as requested This indicated to the engineer and the other crew members on the locomotive that signal 4L, which they could not see because of the prevailing fog conditions, was displaying a proceed aspect for their train

Assuming that he would see signal 4L displaying a proceed aspect when it came into view through the fog, the engineer took no action to reduce speed and prepare to stop short of that signal, as required by the aspect displayed by signal 3-526 and the carrier's operating rule (No. 98) governing the approach of a train to the end of two or more tracks. Hence, the train continued to approach signal 4L while moving at 25 to 30 m p.h on a slightly descending grade When this signal came into view at a distance of about 1000 feet, the engineer saw that it displayed a Stop aspect, instead of a proceed aspect as anticipated, and applied the train brakes in

emergency This action, however, was taken too late to stop the train short of signal 4L, resulting in the locomotive passing that signal as the train reduced speed and subsequently stopping with the front end on track No 2 in front of No 25, causing the collision

It is clear the accident was caused by failure of the engineer to operate Extra 9192 North in accordance with the Approach aspect displayed by signal 3-526, and to stop his train short of signal 4L as required

It is further clear that significant causal factors were (a) the KX operator's apparent improper use of the radio to inform the engineer that the route had been established for his train to enter track No 2 at Indian Oaks and (b) the engineer's reliance on the aforesaid radio information as indicating signal 4L displayed a proceed aspect In this connection, the carrier's radio rule No. 20 provides that "Crews on trains must not ask and station employees must not advise by radio the position of any fixed signal." When the KX operator informed the engineer of Extra 9192 North that the route had been established at Indian Oaks for his train to enter track No 2, he (in effect) informed the engineer that signal 4L was displaying a proceed aspect Had the operator complied with the carrier's radio rule No. 20 and refrained from imparting this information, and had the engineer operated his train in accordance with the aspect displayed by signal 3-526 (as required by the carrier's operating rules), instead of relying on the radio information received from the KX operator, the accident probably would have been averted

The investigation revealed it was common practice for train crews and station operators to ignore the requirements of the carrier's radio rule No. 20 and to ask or give advice by radio concerning the establishment of routes or signal aspects During the course of the investigation, some employees not directly involved in the accident stated that they had recognized the danger inherent in following this practice and had called it to the attention of carrier officials without successful results Carrier officials said they were unaware of the aforesaid common practice They further said radio communications were frequently monitored to ensure compliance with the carrier's radio rules However, in view of information developed in the investigation, it is apparent the carrier made no real effort to obtain compliance with its radio rules No 20 and 21, and thereby virtually condoned improper use of the radio by train crews and operators as revealed in this case

The common practice involving improper use of the radio, and the lack of adequate measures by the carrier to curtail that practice, were also significant causal factors in the accident, and appear to constitute the underlying reasons why the accident occurred In this connection, a current survey made by the Federal Railroad Administration has revealed that it is, or has been, common practice on

several other railroads for train crews and station operators to ask and receive advice by radio concerning the establishment of routes or aspects displayed by signals, and to do this without properly identifying themselves The tragic consequences of the collision at Indian Oaks illustrate the danger inherent in such practice and the need for carriers using radios to maintain a constant surveillance of radio communications to ensure that those communications do not contravene operating rules and adversely affect the safety of train movements

Cause

The collision was caused by failure of the engineer to operate the freight train in accordance with restrictive signal indications, resulting in the front of the train passing a stop-signal at the end of a three-track line and stopping on another main track in front of the closely approaching passenger train *

Significant causal factors were (a) the prevailing fog condition which restricted the freight-train engineer's view of the stop signal (b) the KX operator's improper use of the radio to inform the freight train engineer that the route had been established for his train to enter the main track on which the collision occurred (c) the KX operator's erroneous information concerning establishment of the aforesaid route (d) the freight-train engineer's improper reliance on the information received by radio from the KX operator (e) existence of the common practice employed by train crews and station operators to ask and/or advise by radio the aspects displayed by signals and (f) the lack of adequate action by the carrier to determine and enforce compliance with its rules governing the use of radios

Recommendations

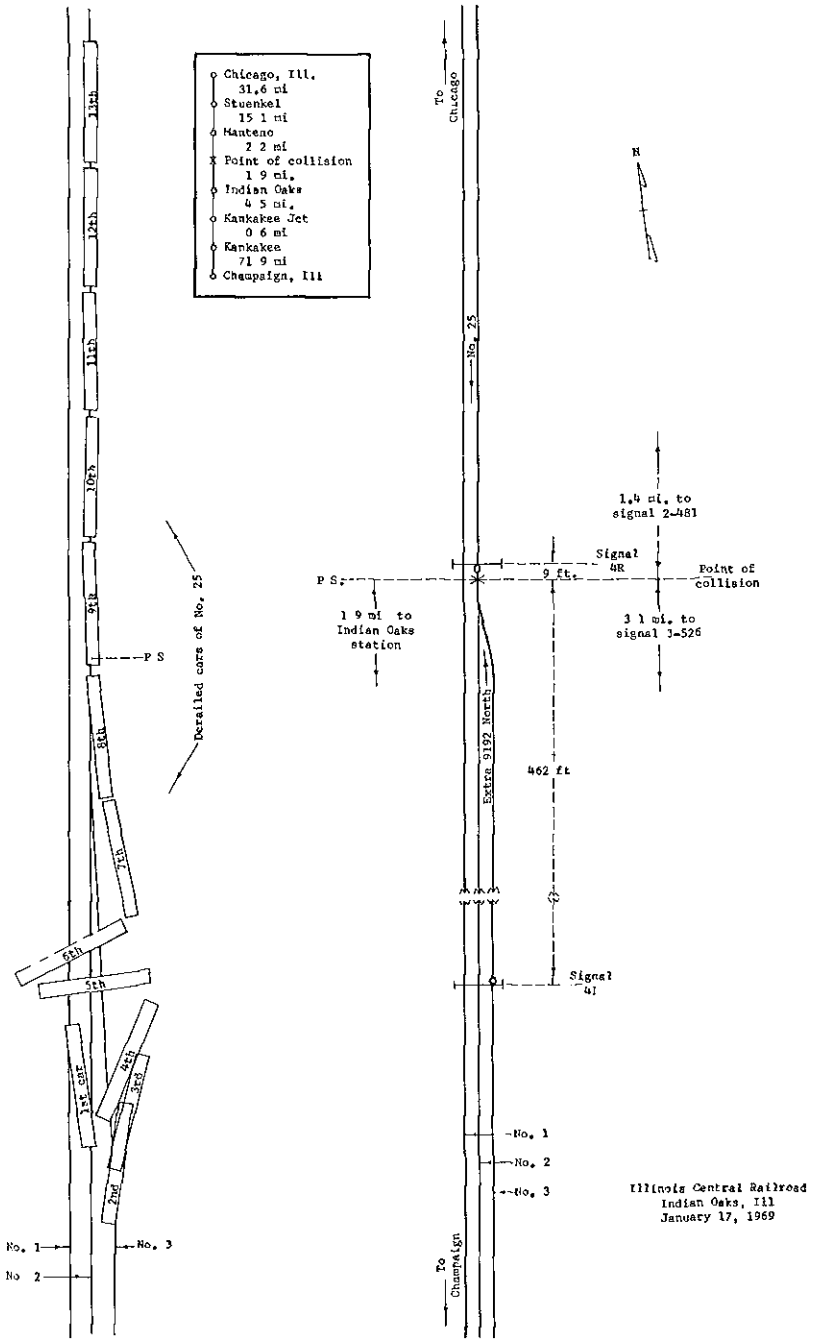
It is recommended that the Illinois Central Railroad, as well as other railroad carriers with radio facilities, intensify their monitoring of radio communications concerning train and engine movements to the extent necessary to ensure said communications do not imperil railroad safety and are in compliance with operating and radio rules or regulations

Dated at Washington, D C , this 6th
day of November 1969
By the Federal Railroad Administration

Mac E. Rogers, Chairman
Railroad Safety Board

*The Federal Railroad Administration has no jurisdiction over railroad operating rules; track structures; bridges; rail-highway grade crossing protection; track clearances; consist of train crews; qualifications or physical condition

of railroad employees, running and draft gear on cars, or the construction of cars except those appurtenances within jurisdiction of the Safety Appliance Acts and the Power Brake Law of 1958


Chicago, Ill.
31.6 mi
Stuenkel
15 1 mi
Manteno
2 2 mi
Point of collision
1 9 mi.
Indian Oaks
4 5 mi.
Kankakee Jct
0 6 mi
Kankakee
71 9 mi
Champaign, Ill
11th
12th
11th
10th
9th
8th
7th
6th
5th
4th
3rd
2nd
1st
P S
Derailed cars of No. 25
No. 1
No 2
No. 3
To Chicago
No. 25
N
1.4 mi. to signal 2-481
Signal 4R
9 ft.
Point of collision
P S
1 9 mi to Indian Oaks station
3 1 mi. to signal 3-526
Extra 9192 North
462 ft
Signal 41
No. 1
No. 2
No. 3
To Champaign
Illinois Central Railroad
Indian Oaks, Ill
January 17, 1969