



# ZRTI Phase-1 Operation Project



क्षेत्रीय रेल प्रशिक्षण संस्थान उदयपुर  
Zonal Railway Training Institute Udaipur

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IRTS (P) 2018

Monday, September 21, 2020

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## Topics to be Covered

- Intermediate Block Post
- Intermediate Block Signal
- Passing of intermediate block stop signal at ON



## Need

- IR under increasing pressure on existing routes to handle larger passenger and goods traffic.
- Busy sections are reaching their capacity limit
- Conventional methods for enhancing the capacity of railways are expensive





- Intermediate Block Sections are provided to increase track usage in areas with absolute block operations where the distances between successive stations are large, causing each block to be very long.
- The heart of the absolute block system is the idea of only permitting one train ever to be on a block at any time; however, if the block is very long, this restriction reduces the possible traffic on the route

## Intermediate Block Hut

- It is a class C station
- It is available in single line and double line
- Station master is available at this station



## Intermediate Block Post



- It is a class c station
- It is available Single line , double line and multiple line
- Station master is not available at this station
- Signals are remotely controlled by station master of station in rear
- IBSS is the home signal of the ibp

## Intermediate block signalling (IBS)



- Technique by which a block section between two adjoining stations is split into two by the provision of an additional signal which is remotely controlled from the station .
- The effect of such a signalling arrangement is the same as providing additional manned stations and increases the number of trains that can be passed on a line

## PASSING OF INTERMEDIATE BLOCK STOP SIGNAL AT 'ON'

- When a Loco Pilot finds an intermediate Block Stop signal at 'ON' he shall stop his train in rear of the signal and contact the Station Master of the block station in rear on the telephone, if provided on the signal post.



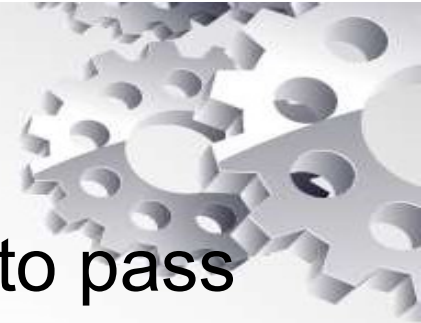
## Conditions

1. line clear is not recieved
2. signal is defective



## Contd.

- The Station Master shall authorise the Loco Pilot to pass the Intermediate Block Stop signal.
- If the telephone is not provided or is out of order, the Loco Pilot after waiting for 5 minutes at the signal shall pass it at 'ON' and proceed cautiously and be prepared to stop short of any obstruction, at a speed not exceeding 15 Kilometres an hour if he has a good view of the line ahead, otherwise at a speed not exceeding 8 kilometres an hour and report the failure to the Station Master at the block station ahead



contd

- The Station Master of the block station working the Intermediate Block Stop signal on becoming aware that such a signal is defective shall, before despatching a train, treat the entire section up to the block station, immediately ahead of the Intermediate Block Post as one block section and issue a written authority to the Loco Pilot to pass the defective Intermediate Block Stop signal at 'ON' without stopping at the signal



## **CLOSING OF INTERMEDIATE BLOCK POST**

- If the electrical block instruments provided at the stations on either side of an Intermediate Block Post or the track circuiting provided beyond the last Stop signal, or the axle counters provided at either end of block section, fail, the Intermediate Block Stop signal shall be treated as defective and the Intermediate Block Post shall be deemed to be closed and the section between the stations on either side of the Intermediate Block Post shall be treated as one block section.

# Thank You

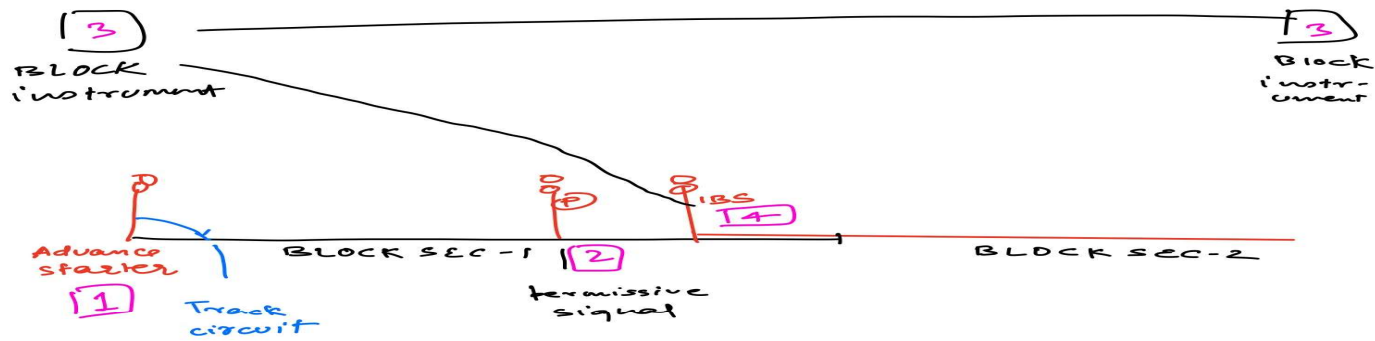


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- 1 → Advance started of rear station
- 2 → Track circuit
- 3 → Block instrument of both station
- 4 → IBS

1 → failed → 2, 3, 4 working  
 ⇒ only T-639(b) given → normal condition

④ - IRS failed →  
①, ②, ③ working

T-629 (b) given supported by private  
number

⑤ - block instrument failed →  
whole section considered as 1

same with ② + private  
numbers

→ paper line clear given