



**BANEDANMARK**

# **ORF**

**Operational Rules  
for fjernbane**

## Changes since previous version

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IN.57

**Change per 2022-12-01:**

In this version the dispatcher is added and the changes related to this for the Signaller and the Network manager.

This update don't influence other roles.

## Roles

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RF.1

### Signaller

RF.2

DEFINITION

The Signaller works within the traffic control centre and is responsible for the day-to-day management of all operations within the area controlled by the Signaller. The Signaller cooperates with all relevant parties to perform these duties.

The Signaller controls the operation of trains and maintenance operation in a designated control area by the use of the traffic management systems.

**Change per 2022-12-01:**

The Signaller works within the traffic control centre and is responsible for the day-to-day management ~~and coordination~~ of all operations within the area controlled by the Signaller. The Signaller ~~must cooperate~~ cooperates with all relevant parties to perform these duties.

The Signaller controls the operation of trains and maintenance operation in a designated control area by the use of the traffic management systems.

RF.119

### Dispatcher

**Change per 2022-12-01:**

Dispatcher

RF.120

DEFINITION

**Change per 2022-12-01:**

The Dispatcher is responsible for ensuring that railway traffic within the allocated area is disposed of correctly in accordance with current service agreements in the event of deviations from the production plan, and in the event of major irregularities coordinate with Signaller, the O&M coordinator, the Network manager and relevant Railway undertakings.

The Dispatcher is responsible for ensuring that timetables, possessions, temporary shunting areas and speed reductions are available in the signaling system.

RF.69

**Network manager**RF.70 DEFINITION

The Network manager is responsible for coordinating the railway traffic during disruptions, in cooperation with the Signaller, Dispatcher, Railway Undertakings, Emergency services, Contractors and others using or working on the rail network managed by Banedanmark.

**Change per 2022-12-01:**

The Network manager is responsible for coordinating the railway traffic during disruptions, in cooperation with the Signaller, Dispatcher, Railway Undertakings, Emergency services, Contractors and others using or working on the rail network managed by Banedanmark.

## Definitions

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OR.DEF.689

**Signalling System**

OR.DEF.434

**Production plan**OR.DEF.435 DEFINITION

The production plan is an online tool which contains the information enabling the signalling system to decide the sequence and paths of trains for routes to be called automatically in order to facilitate automatic route setting. The timetable of individual trains can be seen in the production plan.

All changes to the production plan are communicated and coordinated through the production plan.

Responsibilities

OR.DEF.901

Signaller

**Change per 2022-12-01:**

In the event of traffic irregularities, you must ensure that the dispatcher is informed immediately.

OR.DEF.436

Dispatcher

You must ensure that the production plan is always up to date.

**Change per 2022-12-01:**

You must ~~update~~ensure that the production plan ~~with identified changes~~ is always soon up to ~~practicable~~ date.

## Procedures

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1947		<b>Normal operation</b>
2070		<b>Next operational step unknown</b>
2071	Precondition	The train is at a standstill but not in a depot or at a stabling track. The timetable does not contain any further operations for the train.
2072	Purpose	Update the production plan to resume or end the mission of the train.
		<b><u>PROCEDURE</u></b>
2074	Signaller	The Signaller must in cooperation with the Dispatcher decide the next operational step required and inform the Driver if this deviates from any pre-agreed plan.
		<p><b>Change per 2022-12-01:</b></p> <p>The Signaller must <u>in cooperation with the Dispatcher</u> decide the next operational step required and inform the Driver if this deviates from any pre-agreed plan.</p>
2075	Signaller	To resume or end the mission of the train the Signaller must ensure that the production plan is updated or use manual route setting.
		<p><b>Change per 2022-12-01:</b></p> <p>To resume or end the mission of the train the Signaller must <del>update</del> <u>ensure that</u> the production plan <u>is updated</u> or use manual route setting.</p>

2076 Driver The Driver must accept any valid changes to the pre-agreed plan as informed by the Signaller.

3163 **Handling changes to operation**

**Change per 2022-12-01:**

~~Signaller handling~~ Handling changes to operation

3164 Precondition A need to change the planned operation has occurred.

**Change per 2022-12-01:**

~~The Signaller is aware of the A need to perform a change to the planned operations.~~ operation has occurred.

3165 Purpose Ensure that changes to the operation are handled by the Dispatcher and are included in the production plan in collaboration with the Signaller, in accordance with the service agreement, and possibly in collaboration with the Network manager.

**Change per 2022-12-01:**

~~To Ensure ensure that the changes change to is the either operation are handled by the Signaller Dispatcher according and to are service included agreements in or the by production plan in collaboration with the Signaller, requesting in instructions accordance from with the service agreement, and possibly in collaboration with the Network manager.~~

**PROCEDURE**

3168 Signaller







Deleted

**Change per 2022-12-01:**



~~Manual route setting can be used for last minute re-scheduling by requesting a route for the concerned train.~~

~~Any changes made by manual route setting will be automatically reflected in the production plan.~~ Deleted


3169	Signaller	<p>The Signaller must ensure that the Dispatcher is informed of all changes to the planned operation.</p> <p>If the change can be handled in accordance with the service agreement, the Signaller must ensure that the production plan is updated with the changes.</p> <p>If the change cannot be handled in accordance with the service agreement, the Signaller must ensure that the Network manager is informed.</p>
<p><b>Change per 2022-12-01:</b></p> <p><u>The Signaller must ensure that the Dispatcher is informed of all changes to the planned operation.</u></p> <p>If the change can be handled <del>according in</del> <u>in accordance with</u> the service <del>agreements</del> <u>agreement</u>, the Signaller must <del>update</del> <u>ensure that</u> the production plan <u>is updated with the changes.</u></p> <p>If the change cannot be handled <del>according in</del> <u>in accordance with</u> the service <del>agreements</del> <u>agreement</u>, the Signaller must <del>inform</del> <u>ensure that</u> the Network manager <u>is informed.</u></p>		
3557	Signaller	<p>If the change in the production plan results in a change in the line the train drives or a change in the scheduled stopping locations, the Signaller must ensure that the Driver is informed about the changes.</p>
3170	Signaller	<p>If the change in the production plan results in an altered train sequence out of the level 2 area, the Signaller must inform the Legacy signaller of the level 0 or level ATC area about the change.</p> <p>If the change in the production plan results in an altered train sequence for a train entering or exiting a depot, the Signaller must contact the person controlling the depot and coordinate necessary changes.</p>
3593	Signaller	<p>The Signaller must ensure that the Signallers affected by the change are informed.</p>
2171	<b>Possession</b>	
2192	<b>Establish possession with handheld terminal</b>	
2193	Precondition	<p>The PICOP is at the possession site and has requested a planned possession using the handheld terminal. The possession request has been assessed and accepted by the Signaller.</p>
2194	Purpose	<p>Establish a planned possession.</p>
<b>PROCEDURE</b>		
2195	Signaller	<p> When the Signaller has accepted the possession request, the signalling system will commence the protection requirements and present the possession to the Signaller on the signalling control display and request the Signaller to confirm. The possession protection requirements are implemented once the Signaller has confirmed the possession.</p>

2196	Signaller	<p>When the Signaller is presented with the possession on the signalling control display, the Signaller must check that the possession data indicated on the signalling control display is consistent with the possession planning.</p> <p>If the possession data indicated on the signalling control display is consistent with the possession planning, the Signaller must confirm that the protection requirements can be implemented.</p>
3725	Signaller	<p>If the possession data indicated on the signalling control display is <b>NOT</b> consistent with the possession planning, the Signaller must reject the possession and as far as possible ensure that a new possession is planned in cooperation with the PICOP.</p>
<p><b>Change per 2022-12-01:</b></p> <p>If the possession data indicated on the signalling control display is NOT consistent with the possession planning, the Signaller must reject the possession and as far as possible <u>ensure that a new possession is planned in cooperation</u> with the PICOP.</p>		
2198	Signaller , PICOP	 <p>Once the Signaller has confirmed the possession and the protection requirements are implemented, the signalling system will request the PICOP to prove their location according to possession data. The possession cannot be established until the PICOPs location has been proven correctly.</p>
2199	PICOP	<p>When requested by the signalling system, the PICOP must prove their location by scanning an RFID-tag (Radio-frequency identification) at an ETCS stop marker, or other infrastructure object associated with the possession.</p>
2200	Signaller , PICOP	 <p>Scanning an ID-tag not associated with the possession will result in the PICOP receiving an error message on the handheld terminal.</p>
2201	PICOP	<p>If the PICOP cannot prove their location correctly, the PICOP must inform the Signaller.</p>
2202	Signaller , PICOP	 <p>When the location of the PICOP is proven correctly, the signalling system will establish the possession and send a message to the handheld terminal confirming to the PICOP that the possession is established.</p>
3789	Signaller	<p>The Signaller must ensure that the establishing time and possession data is recorded in the Signaller log.</p>
2203	PICOP	<p>When the handheld terminal indicates that the possession is established, the PICOP must note the time in the PICOP log. The PICOP must then setup worksite protection.</p>
2206	<p><b>Establish possession without handheld terminal</b></p>	
2207	Precondition	<p>The PICOP has arrived at the site and is ready to initiate a planned possession. It is not technically possible to use a handheld terminal.</p>
2208	Purpose	<p>Indicating that the PICOP is ready at the site and, if possible, establishing the possession as planned.</p>

**PROCEDURE**



2209	PICOP	<p>When the PICOP is ready to initiate the planned possession in an interlocked area, the PICOP must contact the Signaller to request the planned possession. The request must contain:</p> <ul style="list-style-type: none"> <li>- possession ID</li> <li>- PICOP ID</li> <li>- PICOP mobile phone number</li> <li>- location in the infrastructure.</li> </ul>
3875	PICOP	<p>If the possession is outside the interlocked area and a Shunting area manager is present on site, the PICOP must arrange the possession with the Shunting area manager.</p> <p>Before a possession is established outside an interlocked area the PICOP must inform the Signaller.</p>
2210	Signaller	<p>When the Signaller is contacted by a PICOP requesting a planned possession, the Signaller must assess if there are any conditions preventing the possession from being established as planned.</p> <p>If the possession can be established as planned, the Signaller must manually request the possession in the signalling system.</p> <p>If the possession cannot be established as planned, the Signaller must contact the PICOP and inform about the reason for the rejection.</p>
2211	Signaller	<p> The signalling system can only activate a possession if all elements of the area are not locked by a route, or by an overlap, or reserved by another established temporary shunting area or possession.</p>
3726	Signaller	<p>When the Signaller is presented with the possession on the signalling control display, the Signaller must check that the possession data indicated on the signalling control display is consistent with the possession planning.</p> <p>If the possession data indicated on the signalling control display is consistent with the possession planning, the Signaller must confirm that the protection requirements can be implemented.</p>
3727	Signaller	<p>If the possession data indicated on the signalling control display is <b>NOT</b> consistent with the possession planning, the Signaller must reject the possession and as far as possible ensure that a new possession is planned in cooperation with the PICOP.</p>
<p><b>Change per 2022-12-01:</b></p> <p>If the possession data indicated on the signalling control display is NOT consistent with the possession planning, the Signaller must reject the possession and as far as possible <del>plan</del><u>ensure that</u> a new possession <del>is planned in co-operation</del><u>is planned in cooperation</u> with the PICOP.</p>		
3724	Signaller	<p> The possession is established when the Signaller has approved it.</p>



3790	Signaller		The Signaller must ensure that the establishing time and possession data is recorded in the Signaller log.
2212	Signaller		When the possession is approved, the Signaller must request the PICOP to prove their location.
3838	PICOP		After request from the Signaller, the PICOP must prove their location in the infrastructure by reading the ID-number on the plate of an ETCS stop marker associated with the possession.
3839	Signaller		When the PICOP has proven their location correctly, the Signaller must inform the PICOP that the possession is established (including establishing time) and inform about the boundaries of the possession and planned end time.
2213	PICOP		When instructed by the Signaller that the possession is established, the PICOP must register the name of the Signaller as well as time and date of establishing the possession in the PICOP log. The PICOP must then setup worksite protection.
3329			<b>Shunting</b>
3408			<b>Establish temporary shunting area with handheld terminal</b>
3409	Precondition		The Shunting area manager is ready to establish a planned temporary shunting area and a handheld terminal is available.
3410	Purpose		Establish a planned temporary shunting area.
			<b><u>PROCEDURE</u></b>
3412	Shunting area manager		The Shunting area manager must use the handheld terminal to request the planned temporary shunting area.
3413	Signaller		The signalling system can only activate a temporary shunting area if all elements of the area are not locked by a route, or by an overlap, or reserved by another established temporary shunting area or possession.
3414	Signaller		Before the Signaller approves the request to establish a temporary shunting area, the Signaller must assess if any conditions exist which prevent the area from being established as planned.
3841	Signaller		When the temporary shunting area is indicated on the signalling control display, the Signaller must check that the indication of the area is consistent with the planning. If the indication on the signalling control display is consistent with the planning, the Signaller must approve the establishing of the area.
3842	Signaller		If the indication of the temporary shunting area on the signalling control display is <b>NOT</b> consistent with the planning, the Signaller must reject the establishing of the area and as far as possible ensure that the area is re-planned in cooperation with the Shunting area manager.

**Change per 2022-12-01:**

If the indication of the temporary shunting area on the signalling control display is NOT consistent with the planning, the Signaller must reject the establishing of the area and as far as possible ~~re-plan~~ ensure that the area ~~is in operation~~ planned in cooperation with the Shunting area manager.

3415	Shunting area manager		When the temporary shunting area is established it will be indicated on the handheld terminal and result in points within the temporary shunting area being released for local control by the handheld terminal.
3793	Signaller		The Signaller must ensure an entry in the Signaller log when the temporary shunting area is established.
3416	Shunting area manager		The Shunting area manager must assume responsibility for the temporary shunting area when the handheld terminal indicates that the requested temporary shunting area has been established.
3422			<b>Establish temporary shunting area without handheld terminal</b>
3423	Precondition		The Shunting area manager is ready to establish a planned temporary shunting area. No handheld terminal is available.
3424	Purpose		Establish a planned temporary shunting area.
			<b><u>PROCEDURE</u></b>
3426	Shunting area manager		The Shunting area manager must contact the Signaller and request the establishing of the planned temporary shunting area. The request must contain a specification of: <ul style="list-style-type: none"> <li>- area ID-number.</li> <li>- location where the area must be established</li> <li>- Shunting area manger ID</li> <li>- radio ID or mobile phone number</li> </ul>
3427	Signaller		The signalling system can only activate a temporary shunting area if all elements of the area are not locked by a route, or by an overlap, or reserved by another established temporary shunting area or possession.
3428	Signaller		The Signaller must manually request the temporary shunting area in the signalling system. Before the Signaller approves the request to establish a temporary shunting area, the Signaller must assess if any conditions exist which prevent the area from being established as planned.
3843	Signaller		When the temporary shunting area is indicated on the signalling control display, the Signaller must check that the indication of the area is consistent with the planning. If the indication on the signalling control display is consistent with the planning, the Signaller must approve the establishing of the area.

3844 Signaller

If the indication of the temporary shunting area on the signalling control display is **NOT** consistent with the planning, the Signaller must reject the establishing of the area and as far as possible ensure that the area is re-planned in cooperation with the Shunting area manager.

**Change per 2022-12-01:**

If the indication of the temporary shunting area on the signalling control display is NOT consistent with the planning, the Signaller must reject the establishing of the area and as far as possible ~~re-plan~~ensure that the area is re-operationplanned in cooperation with the Shunting area manager.

3845 Signaller

The Signaller must inform the Shunting area manager when the temporary shunting area is established. The boundaries of the area must be included in the message.  
The Signaller must ensure that an entry is made in the Signaller log.

3429 Shunting area manager

The Shunting area manager must assume responsibility for the temporary shunting area when the Signaller confirms that the area has been established.