THE CHIEF CONSTABLE OF NORTH YORKSHIRE

Shift Patterns – Force Control Room

FINAL

Internal audit report: 14.17/18

21 March 2018

RSM

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Final report issued	21 March 2018	**Client sponsor**	Deputy Chief Constable
			Head of Control Room
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1 EXECUTIVE SUMMARY

1.1 Background

As part of the 2017/18 approved internal audit plan we have undertaken a review of shift patterns within the Force Control Room (FCR) to see if the FCR have considered the demand on the department and the resources available to ensure that resource is sustainable.

There is currently a 'six on four off' shift pattern for call handlers and dispatchers in the FCR. These are split into five bands, with each band working two early shifts, late shifts, night shifts and then four rest days. This shift pattern was established in March 2016 following a review of the demand and workflow of the FCR. We have reviewed the proposal document and analysis of call volumes carried out in February 2016 to determine if the current shift pattern was suitable to meet call volume trends.

The FCR experiences difficulties in retention of staff, largely due to staff leaving for another job in the Force or another Force. There is ongoing recruitment in the FCR, with training sessions being booked up until January 2019.

In the summer of 2016, there was a national increase in both emergency and non-emergency calls and in the summer of 2017 the FCR also had to take emergency calls on behalf of the Metropolitan Police due to the high levels of calls they were experiencing. These increases in call levels and having insufficient staff levels led to the national target to answer 90% of emergency calls in ten seconds not being met.

A Gold Group was set up in July 2017, chaired by the Deputy Chief Constable and attended by the Head of Control Room, Control Room Manager and Services Improvement Manager as well as representatives from other departments across the Force, including HR, IT and Training. Actions were identified to address both high call levels and low staffing levels and an action log implemented and reviewed regularly at these meetings.

1.2 Conclusion

The current shift pattern has been implemented for the efficiency in staffing levels as it reduces instances of having a higher number of staff than is required for the call volumes or not having enough staff during periods of high call volume. The national service level target for emergency calls is to answer 90% in ten seconds and the Force's service level target for non-emergency calls is to answer calls within 30 seconds. The Force have not met these targets since the shift change was implemented, however increases in call levels and a decrease in staffing levels have had a large impact on this

Our audit opinion has been given as the Force does not have enough staff to meet local demand and they have not monitored staff levels alongside call patterns since the shift change was implemented, however authorisation was recently given to take on an additional 15 members of staff and the Force is currently developing software internally that will analyse call levels and staffing levels and will be able to predict call levels on a given date and therefore the number of staff required, to help inform shift planning decisions.

Internal audit opinion:

Taking account of the issues identified, the Chief Constable can take **reasonable assurance** that the controls in place to manage this area are suitably designed and consistently applied.

However, we have identified issues that need to be addressed in order to ensure that the control framework is effective in managing the identified area.
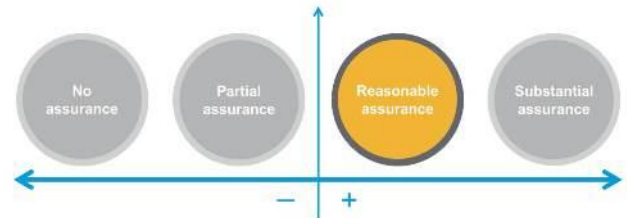
2 KEY FINDINGS

2.1 Observations identified during the review:

2.1.1 The Force's current approach to shift rostering and how peaks in demand are dealt with

Staff on a 24 hour shift pattern moved to a six on four off pattern in 2013 (consisting of two early shifts, two late shifts, two night shifts and four rest days), while FCR Communications Officers that were not on 24 hour shift patterns remained on a six on three off shift, which misaligned shift patterns and also resulted in staffing levels no longer being aligned to demand. This resulted in an assessment of the current shift levels at the beginning of 2016, and a proposal being sent to the Command Team to approve a re-alignment of shift patterns.

We reviewed the FCR's current shift patterns and the Proposal to amend shift patterns for FCR Communications Officers document that was presented to the Command Team and confirmed it had considered the following relevant information:

- Average daily call volume;

- Maximum and minimum number of staff required per shift per day;

- Average number of staff per shift per day;

- Abstraction levels (for staff holidays etc); and

- Misalignment and required alignment with other staff in FCR and line managers.

An 'Erlang calculator' had been used to assess shift options, this is a mathematical calculation that calculates the number of staff needed for a given number of calls, to meet a given service level. The Erlang calculator results had been reviewed with two different shift patterns, five on three off and six on four off. It was decided that the five on three off shift patterns did not sufficiently and consistently meet demand of call volumes.

Within the six on four off plan, there are four different shift patterns for the non-24 hour staff which cover different times of the day on each of the early, intermediate and late shifts. Both 24 hour staff and non-24 hour staff are separated into five different bands, with staff across the different shift patterns. The five different bands determine who is working early, intermediate, late or rest days.

Shift start times are staggered to deal with increases in demand. Shift end times are also staggered so that staff levels drop down in line with the decrease in call volumes. There are also part time staff who work during periods of known high call volume both in the day and evenings, and during night shifts, dispatchers also answer the phones due to lower demand in their workload overnight.

We were provided with spreadsheets for each shift pattern, that showed how early/intermediates/late Officers are split out and the start and end date for each shift. We were also provided with the staff band spreadsheet that showed who is in each band and which shift pattern they work. All of this information was communicated to us by the Control Room Manager, and the above documents were reviewed and explained to give us an understanding of how the shift planning works.

2.1.2 Actions identified by the PSNI (Police Service of Northern Ireland) peer review

PSNI (Police Service of Northern Ireland) carried out a peer review of NYP's Force Control Room in February 2014, and followed this up in December 2016. Both of these reviews recommended that the Force move to a four band 12 hour shift pattern for its Dispatch and Call Handling staff.

This recommendation was considered but the FCR made the decision not to move to a four band / 12 hour shift pattern as it was determined it was not suitable for the peaks and falls of call levels. We were advised that moving to this method would have resulted in having too many staff on shift for the amount of calls coming in.

We were advised by the Head of the Control Room that Inspectors were also consulted with and expressed that they did not want to move to this shift pattern.

We confirmed the action to review with staff whether an emergency 12 hour shift pattern would be viable as a short term measure was on the SILVER action plan, it was considered but determined not to be viable on 20 June 2017.

2.1.3 The data used to drive shift patterns and monitor performance

To ensure that call volumes and call handling performance measures are being met, on a monthly basis the Control Room Manger monitors call handling performance figures and reports these to OPCC and the Performance Team, this shows, by month, the total number of calls, split out by emergency, non-emergency and operator calls: average time taken to answer; % answered within SLA; number of calls transferred to the secondary line; average abandonment time; for 101 calls, % abandoned and average call duration.

The original proposal for the shift change in 2016 included a graph that showed the average number of calls per half hour period in one day or the number of staff available to answer calls compared to how many are required for these call levels, the figures used in this graph were provided from the Erlang calculator results. We were advised, that this data has not been reviewed since the shift change was implemented because to create this graph, extensive work needs to be carried out to extract the data and put it into a useful and useable format. If this data is not reviewed on a regular basis there is a risk that call volume trends may change overtime, and shift patterns may become misaligned with these trends.

However, we have not agreed a management action as the Control Room Manager is currently working on a software package that we were advised will be able to predict call levels based on historical data. This software should also be able to show average call volume per time periods in the day, staffing numbers needed for this call volume and actual number of staff. This will be a useful tool to determine if call volume patterns have changed and if the FCR have the required amount of staff at any given time of the day, this will therefore inform any changes in shift pattern requirements. The Control Room Manager confirmed this would be in place within two months of our audit.

A Post Implementation Review (PIR) of the shift pattern change was carried out approximately six months after the implementation. The review focussed on the new alignment of staffing levels to call volumes and staff feedback, however there was no analysis of average speed to answer (ASA) or abandonment rates which had been detailed in the proposal document.

This was because of a national increase in both emergency and non-emergency calls in summer 2016, which was when the new shift patterns started. FCR staff numbers also fell in the period since the change. As both of these factors had a negative effect on call handling performance figures, the decision was made not to include them in the PIR as they would not be reflective of just changes in shift patterns.

There was a further national increase in call volumes in summer 2017, and Forces across the country also had to take emergency calls for the Metropolitan Police as they did not have enough staff to cover their call volumes. Although there had been months where ASA has been within 10 seconds since the shift change in May 2016, the target of answering 90% of calls within 10 seconds had not been achieved since the change, for the reasons above.

2.1.4 Staff recruitment, retention and flexible working

The Control Room Manager maintains a spreadsheet of which FCR staff are in which band, this includes full time 24 hour staff, non-24 hour staff and part time / flexi staff, there are a set number of staff assigned to each band, so when a member of staff leaves this spreadsheet shows where there is a vacancy.

The Control Room Manager also runs a report straight from the telephony system showing a summary of call data for a time period, for example the previous day. This report splits out total call numbers, answered calls, answer times, abandoned calls, abandon times, average call times, number of staff and percentage of calls within the service level within 15 minute time frames throughout the day. By reviewing this report for the different service lines (emergency, non-emergency, operator enquiries) the Control Room Manager can determine which shift times has a demand for additional staff, and so this is the shift pattern that new recruits are assigned to.

The Force is continuously recruiting for FCR staff as they struggle to retain staff, one reason for this is that individuals see the role as a stepping stone to becoming a police officer, so they are in the job for a short period before leaving to start a police officer role.

We confirmed there was a training programme in place for new starters, with three start dates in 2017, four in 2018 and one planned so far in January 2019. We also confirmed there was an action on the Silver action log on FCR recruitment which had been updated at each meeting with progress and changes in recruitment, the updates on the action confirmed that recruitment training courses were fully booked until August 2018 and courses were booked on up until 2019.

Approval for a further 15 staff was given during the week of our audit, due to increasing call volumes, so that rising demand in call volumes can be met. The FCR will see this increase over the following six months as part of the normal recruitment and training mentioned in the paragraph above.

Staff can put in a flexible working request if they want to make any changes to their shift patterns, the request is considered by the Control Room Manager who reviews the current shifts to see if there is scope to grant the request. If approved, the shift changes are reviewed every three months to check they are still viable.

For 24hr dispatchers, the staff band spreadsheet splits the staff into five bands and within each band staff are separated into full time staff and part time staff, to calculate part time FTE. There is a separate tab on the spreadsheet that keeps a record of all staff not FTE per band, this shows which shifts they work and therefore how many FTE staff there are per band for each shift. When staff make a request to change their hours / days, the Control Room Manager refers to this spreadsheet to see if there are enough staff for the change to be approved or if it needs to be negotiated with the individual.

For call handlers, the staff bands spreadsheet shows 24 hour staff and non 24 hour staff in each of the five bands, as well as part time staff in each band, with notes added to the spreadsheet of what hours or shifts they work. When staff request to amend their shifts, the Control Room Manager reviews this spreadsheet to ensure there are enough FTE staff per band to cover high volume call hours.

We reviewed these two spreadsheets with the Control Room Manager and for a sample of staff on flexible working they explained why the request had been granted, we confirmed that where a member of staff in the FCR had stopped working a particular shift, there were sufficient staff working on that shift to allow the individual to not be on it. Following on from this testing and review of the spreadsheets found they were sufficient to monitor shift patterns, flexible working and staff vacancies.

2.1.5 Gold and Silver groups have formulated an appropriate plan to address demand and resources

When more than 50 emergency calls are answered after over two minutes in one month, BT must automatically inform the Home Office. In the summer of 2017 when the Force had to answer emergency calls for the Met Police they went over this 50 calls limit for several months. As a result, a Gold Group was set up in June 2017 to tackle the high call volumes and low staff levels.

This group met every two weeks and was chaired by the Deputy Chief Constable and attended by the Head of Control Room, Control Room Manager and Services Improvement Manager as well gold representatives from departments across the organisation. An action log was implemented and actions identified to address these issues. The meetings then changed to a Silver Group meeting chaired by the Head of Control Room and actions on the action log reviewed and updated at each meeting until they could be closed.

The last Gold meeting took place in January 2018 as the action plan had addressed the critical issues that required immediate intervention and performance had started to improve. The longer-term actions were transferred to an FCR Continuous Improvement Plan owned and managed through the FCR Chief Inspector. This led to a business case being presented to the Chief Constable and Police and Crime Commissioner asking them to consider investing in a new building and more staff for the FCR to address long-term resource issues. (This paper was approved during the week of our audit.)

We reviewed a copy of the action log which had last been update on 10 January 2018, we confirmed that actions were reviewed regularly at meetings. Actions covered short, medium and long term and additional actions had been added to the action log when they were identified by the Group. There were seven actions still open on this plan, the FCR Manager and Services Improvement Manager provided an update on these actions:

- Two were completed, one was not a FCR piece of work, so responsibility had moved to another department within the Force;

- One action for Wallboards had been completed by FCR and the wallboards were due to be delivered in the next month, so this action should have been closed on the action plan;

- One action to remind people of the FCR workload had been completed but had been left open for updates on further communications sent out to other departments about FCR workloads;

- One was the ongoing monitoring of call handling performance, which was still being carried out on an ongoing basis by the Control Room Manager;

- One referred to the paper detailed above to plan for expansion of estate and additional staff; and

- One related to FCR recruitment, which was ongoing, and was also covered in the paper mentioned above.

No management actions were required following our review.

APPENDIX A: SCOPE

The scope below is a copy of the original document issued.

Scope of the review

The scope was planned to provide assurance on the controls and mitigations in place relating to the following area:

Objectives of the area under review
The Force Control Room (FCR) has sufficient resource in place to meet the demands of the local communities and this resource is sustainable over the long term.

When planning the audit, the following areas for consideration and limitations were agreed:

Areas for consideration:

- An assessment of the force's current approach to shift rostering to reflect the needs of the communities and how peaks in demand are dealt with.

- Review of the decision made to more towards a four band / 12 hour base with flexible working overlaid and if the force had sufficient flexible working arrangements to meet demand peaks. We considered how the force had assessed the potential impact of flexible working requests on resource.

- Review of data which is used to drive shift patterns and confirm that it is up to date and useable to predict future trends.

- Actions identified by the PSNI (Police Service of Northern Ireland) review had been considered and, where appropriate, applied to the Force's control room shift patterns. The outcome of the implemented actions had been reviewed and reported through the relevant governance structure at the Force.

- Staff recruitment and retention had been considered and its impact on meet future demands assessed.

- Gold and silver groups had formulated an appropriate plan that addressed the demand and associated resource implications over the short, medium and long-term. We confirmed if plans were in place and had been reported to the groups at regular intervals.

Limitations to the scope of the audit assignment:

- We did not confirm the FCR has sufficient resource to meet the demands of the local communities.

- We reviewed the control framework in place but due to the area we did not perform substantive testing.

- We did not confirm the current model is sustainable over the long term but we did confirm if this had been considered as part of the Force's longer-term plans.

- We did not confirm service level targets had been achieved or would be achieved in the future.

- We did not interview staff as part of this process.

- We did not duplicate or replicate the HMIC's approach or testing.

- Testing was completed on a sample basis.

- Our work does not provide absolute assurance that material errors, loss or fraud do not exist.

APPENDIX B: CALL PERFORMANCE

Call handling performance data for the Chief and Constable of North Yorkshire, January 2016 – January 2018

Emergency (999) calls

Month	Volume	Average Speed to Answer	% SLA against 90% in 10 seconds
Jan 16	4931	05	90.16
Feb 16	5145	05	89.17
Mar 16	5100	05	89.96
Apr 16	4992	06	86.34
May 16	5761	06	84.20
Jun 16	6074	09	80.49
Jul 16	6830	10	78.01
Aug 16	6560	11	77.97
Sep 16	6082	10	77.51
Oct 16	6084	09	78.84
Nov 16	5547	10	79.36
Dec 16	5849	08	82.94
Jan 17	4911	07	85.20
Feb 17	4893	10	77.85
Mar 17	5587	11	73.24
Apr 17	5855	11	75.36
May * 17	6625	13	67.08
June 17	7076	18	55.86
July 17	8189	19	52.91

August 17	8551	17	59.30
Sep 17	6959	12	74.07
Oct 17	6950	09	81.50
Nov 17	6172	07	86.91
Dec 17	6585	09	81.05
Jan 18	5955	09	84.21

Note: new phone system installed June 2016, new Operator system introduced August 2017 to direct calls away from 101 to an operator.

Non-Emergency (101) calls

Month	Volume	ASA	Average call duration
Jan 16	19843	44	3:54
Feb 16	20275	59	3:49
Mar 16	22373	59	3:53
Apr 16	22311	1min 08 sec	3:55
May 16	25551	1min 16 sec	3:46
Jun 16	26701	1min 01 sec	3:52
Jul 16	27265	1min 37 sec	3:49
Aug 16	28001	1min 39	3:43
Sep 16	25957	1min 40 sec	3:58
Oct 16	24264	1:54	4:08
Nov 16	22878	2:11	4:18
Dec 16	21210	1:30	4:15
Jan 17	21045	1:28	4:15
Feb 17	19898	1:49	4:26

Mar 17	24463	2:08	4:18
Apr 17	22868	1:54	4:21
May 17	25387	2:18	4:22
June 17	26115	3:45	4:25
July 17	26896	4:13	4:33
Aug 17	24017	3:25	4:15
Sept 17	19997	2:19	4:10
Oct 17	20932	2:24	4:07
Nov 17	19656	1:32	4:19
Dec 17	17908	1:52	4:27
Jan 18	19268	1:22	4:17

Note: new phone system installed June 2016, new Operator system introduced August 2017 to direct calls away from 101 to an operator.

APPENDIX C: FURTHER INFORMATION

Persons interviewed during the audit:

- Control Room Manager

- Head of Control Room

- Service Improvement Manager

Documentation reviewed during the audit:

- Shift pattern 2016 Command Team report

- Shift Review 2016 Average Max Mins 20% abstraction Summary

- Shift Pattern Review Post Implementation Review

- FCR planned Courses and Tuition 2017 – 2019

- Call handling data, January 2013 – January 2018

- PSNI Peer Review of NYP FCR

- Gold / Silver meeting action log

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