

THE COP KILLER

The life expectancy of a Police Officer in the USA, according to many studies, is about 10 years less than that of the general population. (53 to 66 years depending on the study)

The conclusion that all researchers come to is that rotating shift work is the primary cause of early demise.

Every officer will work shiftwork when joining, and most will continue to do so throughout their career.

Front Line Police Officers generally have little input into shift design, and are usually resigned to coping with whatever schedule is thrown at them.

Police Managers are therefor tasked with deciding what shifts officers should work.

Invariably the schedule of choice is where individual shifts lengths add up to a 40 hour week.

Variations and additions are sometimes made to this 'Core Schedule' to match what Managers perceive to be the service demand.

This causes the officer to work irregular hours, with irregular days off, thus destroying any hope of a 'work/family life' balance. (which may explain some secondary causes for reduced life expectancy)

Incredibly, Police Managers have little idea of what the service demands are.

Therefor, when blindly allocating their resources, they are constantly missing the target. *(See Page 7)*

Police Managers must ask the following questions, and check out the answers given below.

QUESTIONS

1. What are the targets you are shooting for?
2. Are you scheduling your resources according to the target?
3. Are you evaluating the risk factors experienced by your officers working those schedules.
4. What should you be doing to ease the burden of officers working shift work?

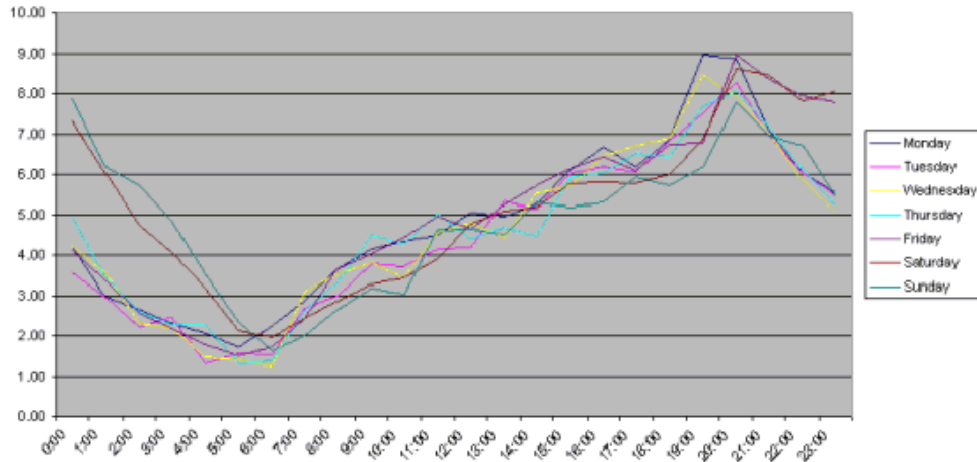
ANSWERS

1. Police Calls for Service (on average) peak between 7 and 8 pm, and bottom out between 4 and 5 am, (as do Ambulance calls). *(See Pages 2, 3 and 4)*
Remarkably (but maybe not surprisingly) this is in sync with Core Body Temperature *(See Pages 5 and 6) and other Human Circadian Rhythms*
The officers charged with responding to these calls for service share their rhythm
2. When scheduling officers to cover the target, it makes no sense to schedule shift starts after 7pm as call demand is on the decline, as is his/her CBT, and his/her sleep urge and sleep need would be increasing. Similarly, it makes no sense to schedule shift starts before 6am.
3. Fatigue is the primary factor when evaluating a schedule for risk. *(see Page 10)*
Work/Family life imbalance comes a very close second.
4. Understandability and predictability of the schedule are very important, as Police Management can better manage adjustments (extra day off requests, mutually agreed shift reassignments, special event reassignment etc.) to the schedule.
Better management of the schedule and timely decisions made to requests for future adjustments (days off) by officers enhance Work/Family life for those forced to work rigid shiftwork.

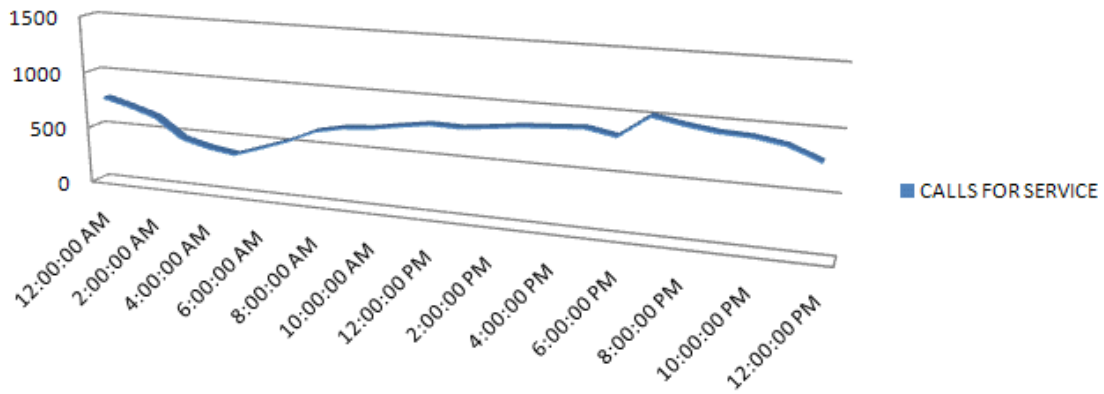
SOLUTION

Work a schedule that matches service demand, is more in sync with circadian rhythm and provides superior work/family life balance. *(see Page 8)*

PAGE 2. POLICE CALLS FOR SERVICE

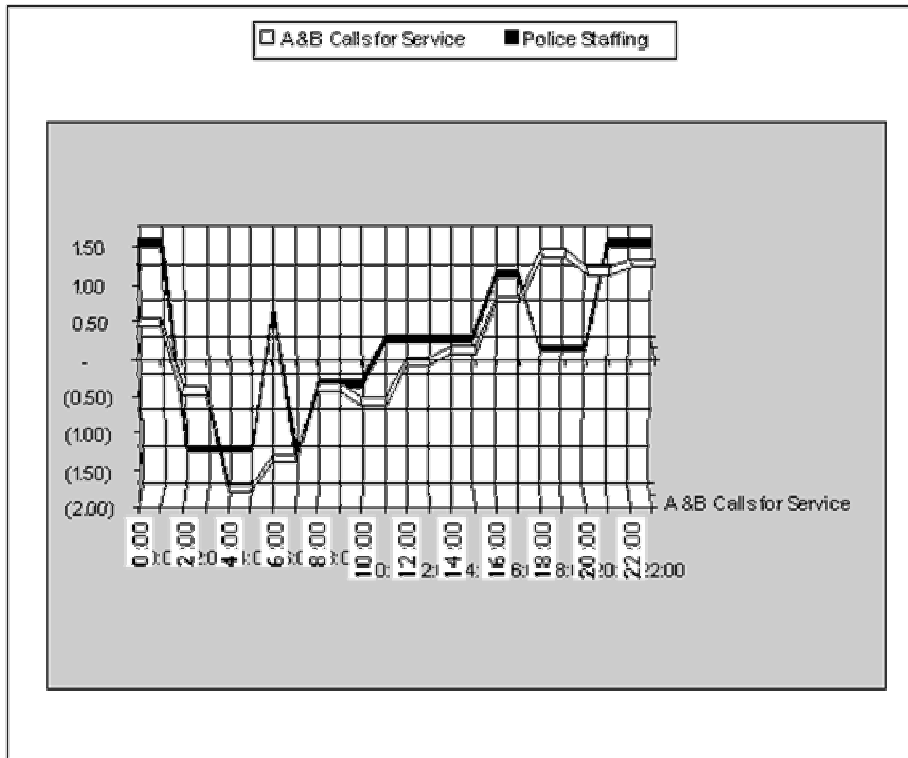


POLICE CALLS FOR SERVICE GRAPH (U.K.)

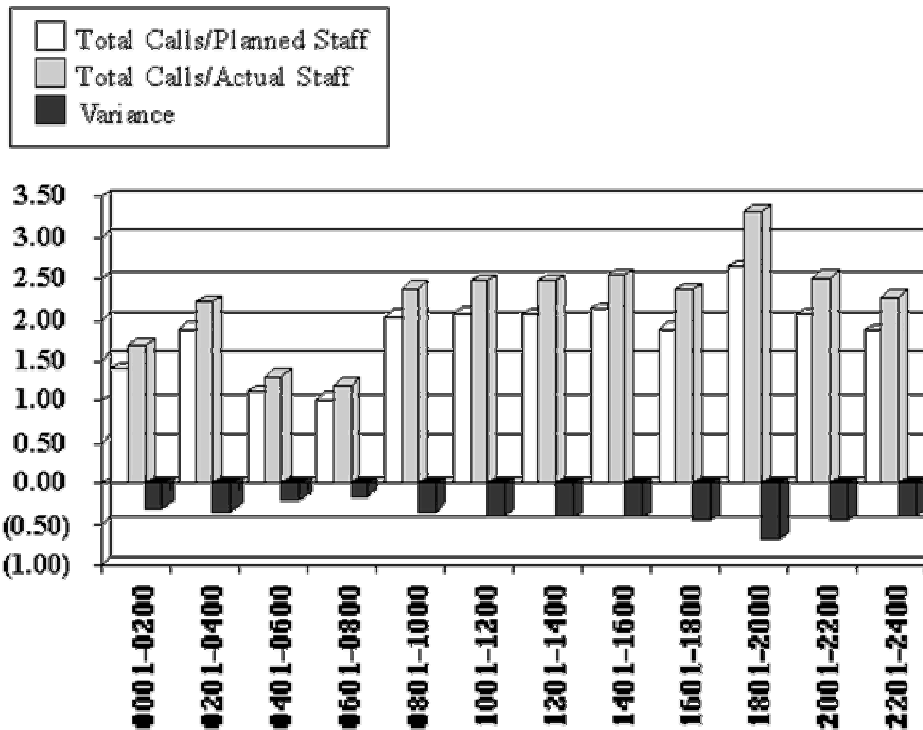


POLICE CALLS FOR SERVICE GRAPH (CANADA)

**PAGE 3. POLICE CALLS FOR SERVICE
(continued..)**

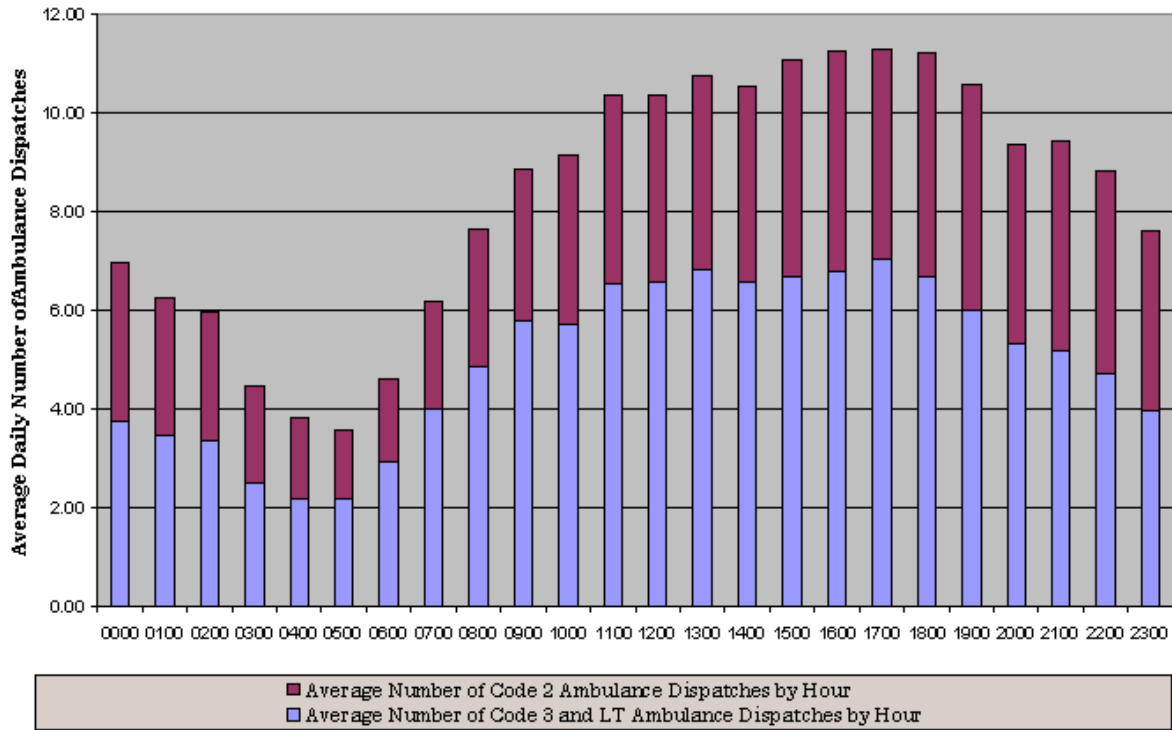


POLICE CALLS FOR SERVICE GRAPH (US)



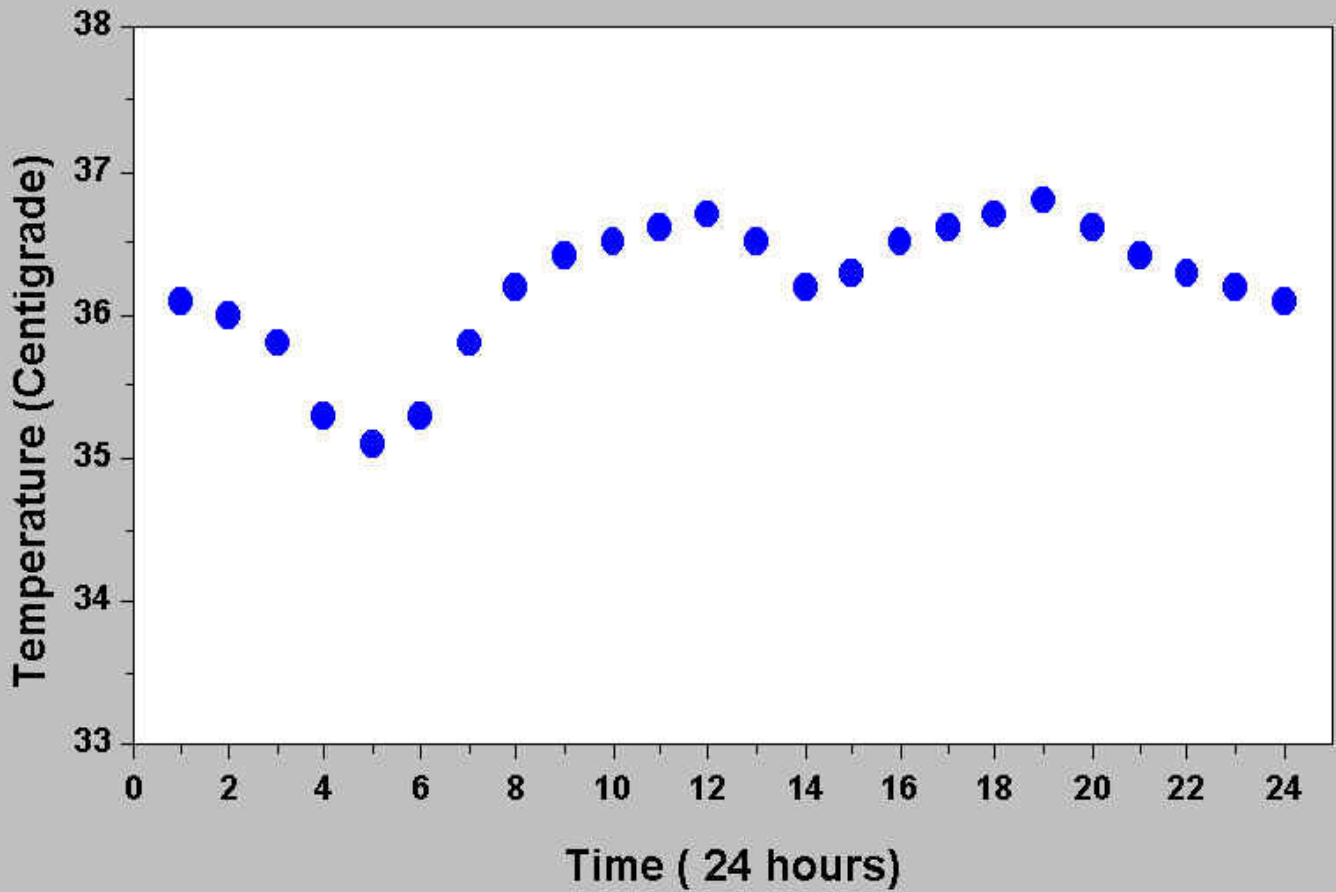
POLICE CALLS FOR SERVICE GRAPH (US)

PAGE 4. AMBULANCE DISPATCH GRAPH

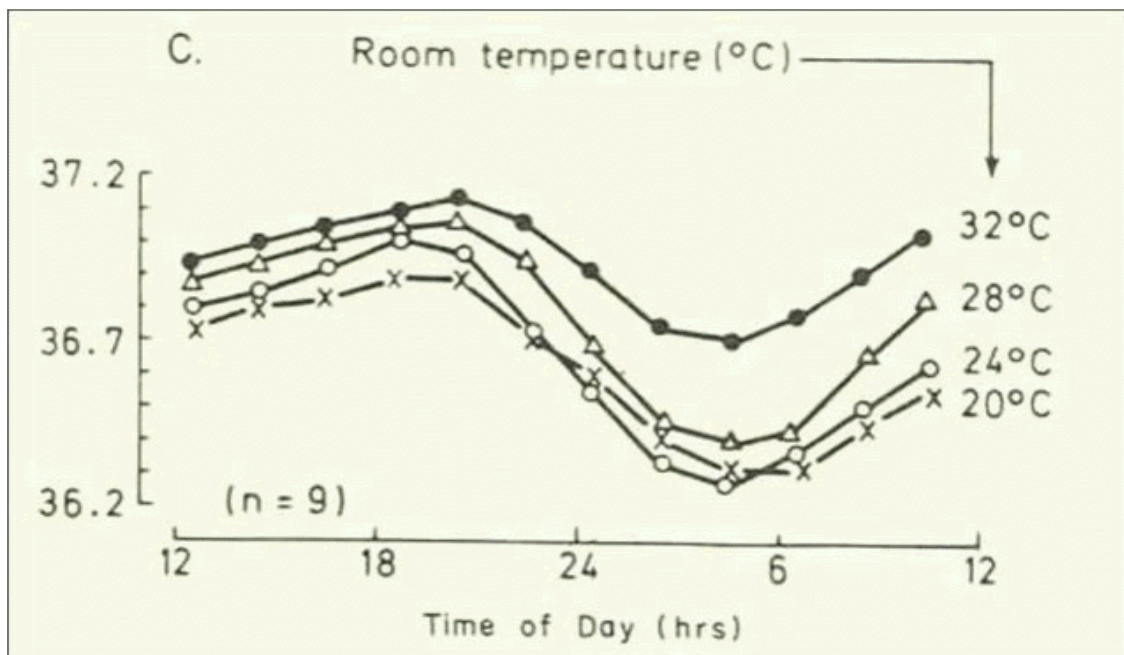


AMBULANCE DISPATCH GRAPH (US)

Core Body Temperature

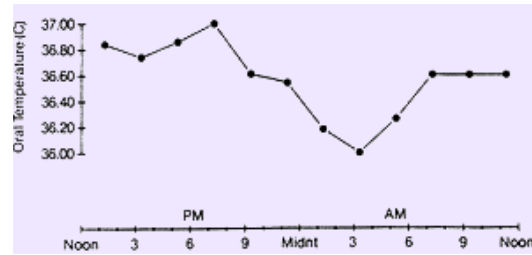


CORE BODY TEMPERATURE (MIDNITE TO MIDNITE)

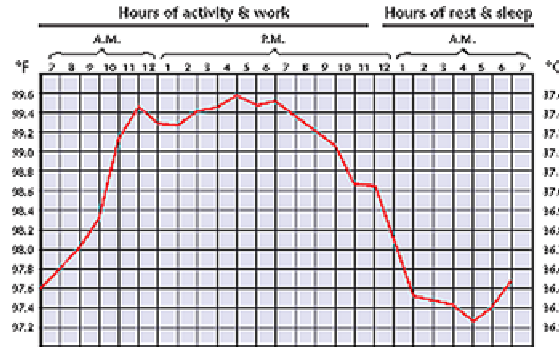


CORE BODY TEMPERATURE (NOON TO NOON)

PAGE 6. CORE BODY TEMPERATURE (continued..)

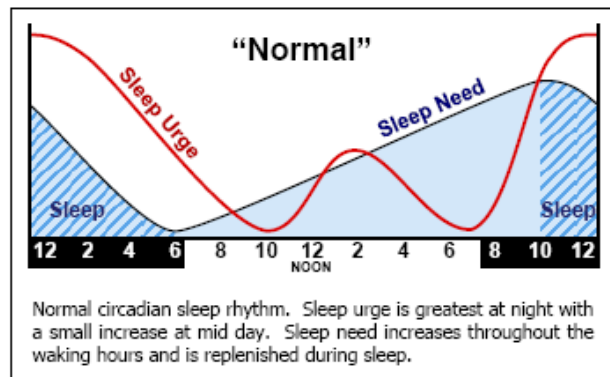


CORE BODY TEMPERATURE (NOON TO NOON)

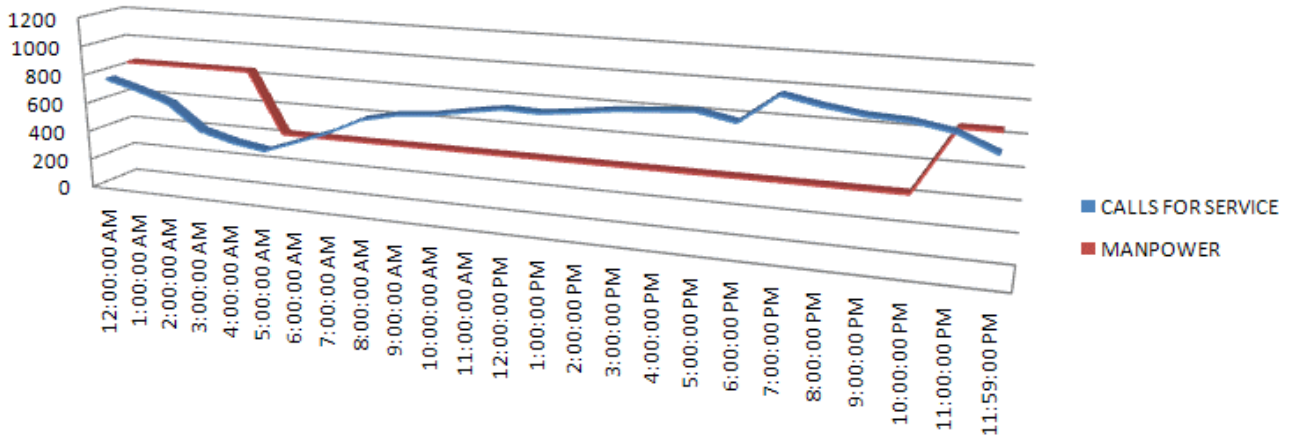


CORE BODY TEMPERATURE (7am TO 7am)

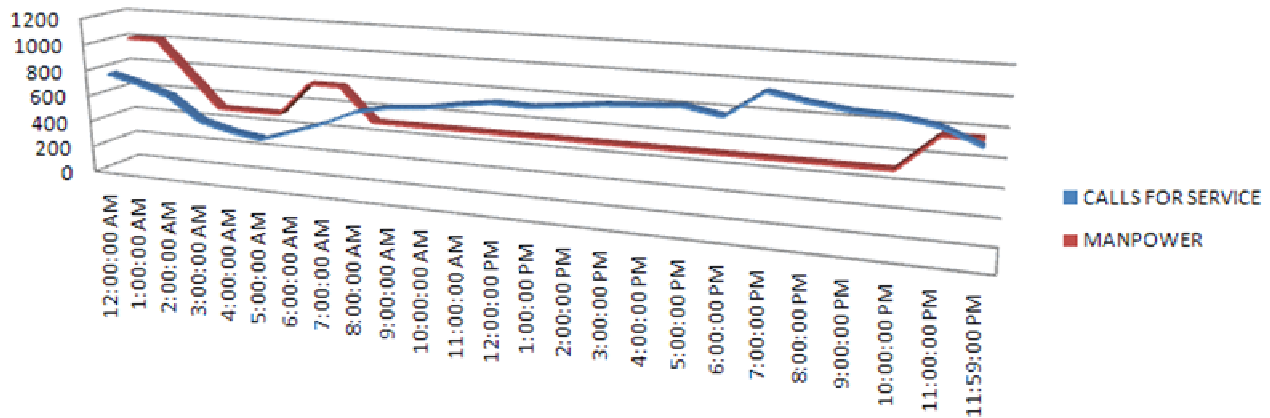
SLEEP RHYTHM



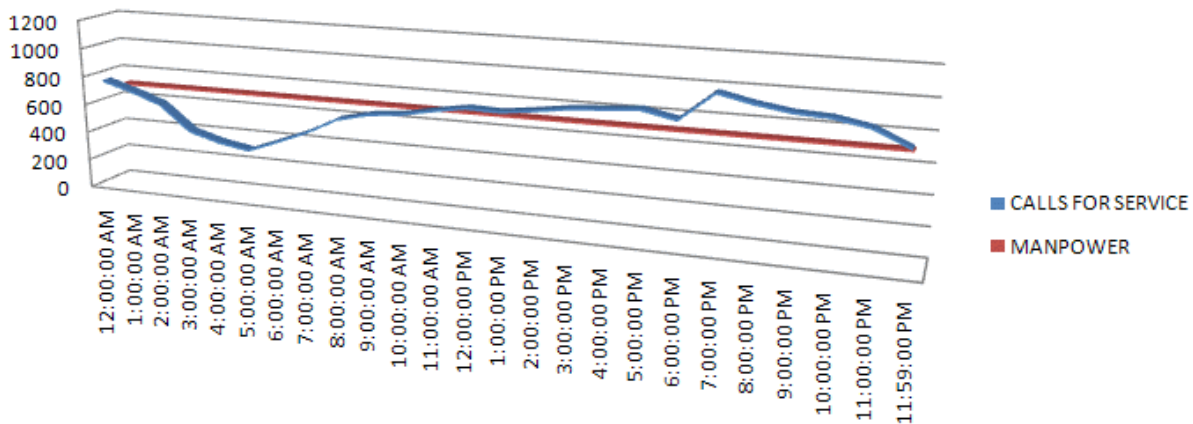
OTTAWA (UK POLICE) SCHEDULE



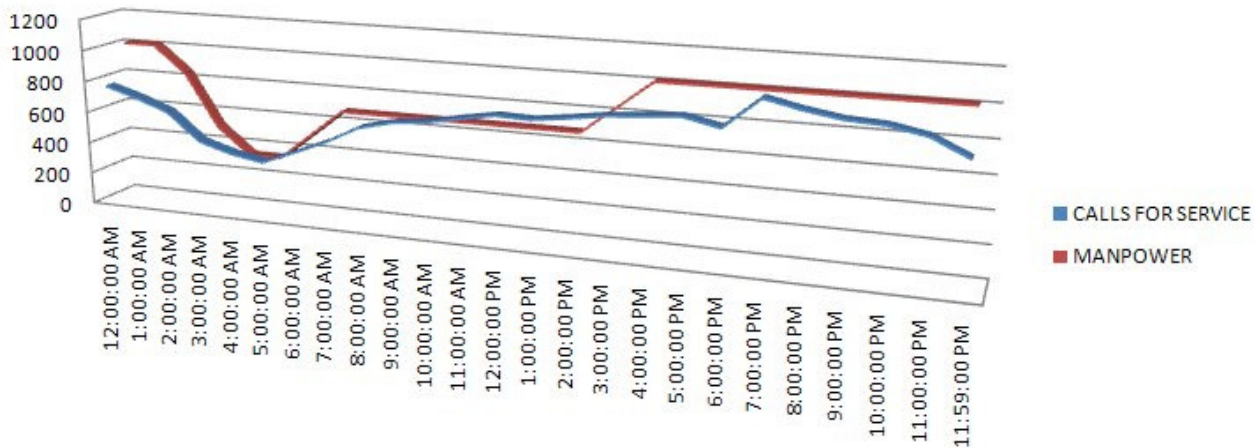
CANADIAN POLICE 35 DAY 10-10-8 SCHEDULE



TRADITIONAL UK POLICE AND CANADIAN 12HR 4/4 SCHEDULES



WHITE Universal Police Schedule



Sustained maximum manpower from 15:15 To 01:15.

Puts 50% more officers on the street during peak periods than OTTAWA,Thames Valley,Merseyside,Grampian shift models!

- Reduction in 'Call Back-Log' and better Call Response.
- More officers available for backup on serious calls.
- Officers have better chance of enjoying scheduled (longer) lunch breaks.

Manpower 'ramps up' between 6am and 7am and boosts between 14.15 and 15.15

- 30 per cent of platoon on duty at 6am (10 percent from night shift, 20 per cent from day shift)
- 40 per cent of platoon on duty at 7am.
- 60 per cent of platoon on duty at 15:15 To 01:30
- 20 per cent of platoon on duty between 4.30 and 6am.

Officers enjoy better health

- No shift rotation except after days off.
- Night shift alternates between 'late-long' and 'early-short', which studies indicate inhibits the body from adjusting from normal 'day time' circadian rhythms.

Work Life finally balanced with Family Life

- Fifty per cent DAY OFF ratio.
- Fifty per cent WEEK END OFF (Saturday and Sunday) ratio.

Schedule predictable and easy to follow.

- 'Year at a Glance' schedule sheets gives every shift for every officer for every day of every year.
- Four ON/Four OFF* simple to follow. (*Six ON/Six OFF occur every 28 days)
- Officers have choice of rotating and fixed shifts. Further choice of early/late starts, and long/shorts starts on first day after days off..

Easy to change to and administer

- Distribution of officers on the new schedule made easy at www.911abc.com by entering number of officers in each group.
- Leave Draw Groups created for leave/holiday administration.
- Sign-Up sheets printable on-line ready for officer's selection.
- Use your own presently preferred system of schedule administration.

PAGE 10. SCHEDULE EVALUATION (FATIGUE)

When contemplating a change of schedules, there are many factors to consider as well as many viewpoints from which those factors are considered.

With 24 hour compressed work schedules, fatigue is far and away of most concern.

The use of a FATIGUE INDEX is invaluable as a major indicator of the viability of a schedule.

Studies show that for any shift the chances of error or accident increase during the course of that shift.

It has also been widely recognised that these factors increase for each successive shift.

The rest period between shifts has also been shown to be a factor when considering fatigue.

This subject is extensively researched in a report prepared by QinetiQ Centre for Human Sciences & Simon Folkard Associates Limited for the Health and Safety Executive 2006, Entitled

- *The development of a fatigue/risk index for shiftworkers*

<http://www.hse.gov.uk/research/rrpdf/rr446.pdf>

The WHITE UPS calculates as follows to approximate the above findings:

For each shift, the length in hours is multiplied by a factor of 0.4 multiplied by the consecutive workday number of the shift. (Nightshift hours – 10pm to 6am - are calculated with a factor of 0.6 to account for extra risk factors.)

Example: For a day shift of 10 hours on the third consecutive workday, the calculation is *10 multiplied by (0.4 * 3)* for a score of 12.

The total score is divided by the number of weeks in the schedule.

Chart Comparing 6 Different Shift Models

SHIFT MODEL	FATIGUE INDEX	AVERAGE REST BETWEEN SHIFTS	DAY OFF RATIO	WEEKEND OFF RATIO (Sat. & Sun.)
9am to 5pm Mon-Fri	48	16 HOURS	28.5%	100%
The WHITE UPS	52 *	12.3 HOURS	50%	50%
12-Hour 4/4 **	52.5	16 HOURS	50%	37.5%
OTTAWA (UK)	54.4	14.3 HOURS	40%	40%
TRADITIONAL (UK) **	78.4	16 HOURS	25%	25%
The TPS CWW	80.6	14.6 HOURS	40%	40%

* 52.3 for fixed shifts

** This schedule averages 42 work hours per week.