



Richardson Fire Department

THE 48/96 WORK SCHEDULE
LOCAL 1954

INTRODUCTION

- ▶ The purpose of this presentation is to present the facts relevant to changing our work schedule to 48 hours on and 96 hours off
- ▶ Only information and facts that could be verified through studies and research were included
- ▶ Numerous articles, reports and dissertations were consulted during the information gathering process, but only sources that provided facts accompanied by data were used

History of “48/96”

- ▶ Originated in Kern County, California
- ▶ Long commutes of the employees resulted in the development of the 48/96 rotation
- ▶ Used by professional fire departments since the early 1990's

History of “48/96” (cont.)

- ▶ At this time there are over 300 professional fire departments around the nation using the 48/96 work schedule.
- ▶ Some Texas Departments that are currently on this schedule include:
 - Haltom City, Watauga, Trophy Club, Midland, Pearland, Sugar Land, Missouri City, Ponderosa, Terrell, Hillsboro, Argyle, Fort Worth (trial period) and many others.

How the 48/96 Works

- ▶ This schedule is based on the 24 hour shift just as the 24/48
- ▶ The shifts are scheduled two consecutively with four off in between (AABBCC)
- ▶ Two shifts worked consecutively is called a “tour”
- ▶ Vacation, sick time and overtime are all still based on the 24 hour shift and 56 hour work week

Studies Referenced

- ▶ “West Metro Study of the 48/96”, Update August 2013
- ▶ “The Effects of Sleep Deprivation on Fire Fighters and EMS Responders” (Final Report, June 2007) produced by the IAFC, references the work of West Metro Fire (recent CE)
- ▶ “The Management Effects of Firefighters Working a Consecutive 48-Hour Shift” By James Clark submitted to the NFA for EFO
- ▶ “Round-The-Clock Systems” By Dr. Susan L. Koen
- ▶ “Sleep to Survive: How to Manage Sleep Deprivation” By Robin Widmar

West Metro Fire Rescue Study

- The members slept more on average post change.
- The increased sleep was distributed throughout both ON and OFF shifts.
- Members slept fewer hours the night before a shift began in anticipation of getting up to go on shift and the new rotation minimizes this.
- At baseline, the majority of respondents were satisfied with their job, and this did not change appreciably with the 48-96; instead views regarding job satisfaction (and in some cases dissatisfaction) became stronger.
- On average, the respondents reported a low degree of dissatisfaction with patient care; this dissatisfaction did not increase on the 48-96, and in fact, showed a trend toward being less.

West Metro Fire Rescue Study

- Members felt that when compared to the old shift, the 48-96 shift interfered significantly less with leisure activities, household activities, and non-household activities like going to the bank.
- Use of caffeinated beverages and alcohol remained the same after the change.
- The majority of families liked the 48-96. They noted that the shift made it much easier to do special projects around the home, participate in leisure time activities, take personal time for themselves, and spend time together as a family.

West Metro Fire Rescue Study

- The majority of families felt that the 48-96 shift did not adversely affect their time together as a family or as a couple, nor did it put a strain on their relationship or their children.
- Very few families reported being adversely affected by the shift change with regard to changing to less satisfactory child care arrangements, elder care arrangements or visitation rights.
- Not all the members like the 48-96 shift and it has made accomplishing household tasks and taking care of children more difficult for some families.

West Metro Fire Rescue Study



- Over half (52%) of the members thought that the overall advantages of the old schedule outweighed its disadvantages, however, a significantly greater proportion of members (68%) felt that the overall advantages of the 48-96 outweighed its disadvantages.

Advantages for Personnel

- ▶ More family time
- ▶ More sleep (3.5 hours/week)
 - ▶ More than 1 week extra of sleep per year.
- ▶ Better health and wellness
- ▶ Less commuting
- ▶ Less expenses
- ▶ Better vacation time value

Advantages for the Department

- ▶ Increased morale
- ▶ Less burnout
- ▶ Better time management
- ▶ Less expenditures (fuel/maintenance)
- ▶ More productivity at the station
- ▶ Decrease in sick time

Personal Health (Fatigue)

- ▶ Acute sleep deprivation vs. Chronic sleep deprivation
 - Acute sleep deprivation is caused by several hours of work without uninterrupted rest.
 - Acute sleep deprivation has no long term effects if followed by two or more days of consecutive rest.
 - Chronic sleep deprivation is caused by the accumulation of sleep debt by the continuous cycle of work without consecutive days of rest.
 - Chronic sleep deprivation is proven to be most harmful and can only be relieved by consecutive days of rest.

Personal Health (cont.)

- ▶ All recent research has linked Chronic sleep deprivation to numerous illnesses that plague the fire service
 - Depression, PTSD, Suicide, Heart Attack, Cancer, Hypertension, Ulcers and Stroke
- ▶ Chronic sleep deprivation is virtually eliminated on the 48/96
- ▶ Starting point for Health and Wellness initiative

Injuries

- ▶ West Metro Fire Rescue Study 2004-2012, 48/96 started in 2006
- ▶ No correlation in increase of injuries due to the 48/96
- ▶ No increase in injuries from the first 24 hour shift to the second (contradicts James Clark's research paper submitted to the NFA)
 - “Injury statistics from 2006 to 2012 show no significant relationship between the first and second shift of the 48 hours. Over this time frame, 96 Workers' Compensation injuries were documented on the first shift and 101 on the second shift. No injury was found to be directly or indirectly related to fatigue”

Training

- ▶ Initially there will be an adjustment of our training matrix
 - Currently we have a matrix that has training scheduled on Thursdays for Multi-Station and Fridays for Special Ops
 - One option is to do training based on the week instead of the day (M,W,F) will include each shift every week

Training Matrix

January						
Sun	Mon	Tue	Wed	Thr	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	24	25	26	27	27
28	29	30	31			

Sick Leave

- ▶ All reporting departments showed a significant decrease in sick time usage.
- ▶ Sick time usage decreased 20-80%
 - “2006 saw a decrease in sick leave use by 29% when compared to the use in 2005, and a 38% decrease when compared to 2004. This improvement was directly related to a significant savings in overtime for the year as well as an increase in staffing levels.”
(West Metro Study)

Overtime

- ▶ Overtime opportunities will be the same for each shift
- ▶ 10 possible OT shifts a month without working a 48 or 72
 - 120 per year
- ▶ With the 48/96 schedule, you could work four overtime shifts per month, never work a 72 hour shift, and still have 3 complete 4 day off periods left

FLSA Cycle

- ▶ FLSA cycle
 - 48/96 requires cycles to be in multiples of 6
 - The 18 and 24 day FLSA periods are most popular
- ▶ Current FLSA cycle is 27 days
 - The 24 day cycle would be recommended
 - 24 day cycle changes FLSA pay out from 12 hrs to 10 hrs.
 - FLSA 24 day cycle is anything over 182 hours, actual hours 192.
 - This would translate to less money per FLSA cycle, but more cycles in the year.

Personnel Time Off

Pro

- 4 days off
- 26 Four Day weekends
 - Currently 0
- 17 single weekend days worked per year.
 - Reduced from 35
- Wake up at home 15 days a month, 180 days a year
 - (Increase from 10 and 120)

Con

- Initial adjustment of the 48
- Every 6 weeks a Sat/Sun is worked
 - Currently 0

Advantages for the City and Citizens

- ▶ Improved employee productivity
 - Well rested
 - Less burnout
 - Healthier
- ▶ Reduced carbon foot print
- ▶ Reduced expenditures
 - less overtime
 - reduced fuel use
- ▶ Recruitment tool

Why Now?

- ▶ As technology changes, we change our tactics. As research is done, we change our training. As studies are completed, we change our habits. Changing our schedule is just one of the many ways we can help our future selves be more well rested, happier in our jobs and hopefully allow our bodies to better fight off the cancers we might face. The longer we wait the less benefit any of us will see.

Conclusion

The 48/96 schedule will provide the citizens of Richardson an overall better product. Through 48/96 the citizens of Richardson could experience such things as reduced spending through fuel costs, reduced overtime, reduced sick leave and increased work performance of its Firefighters.

In turn, The 48/96 schedule will better prepare the Firefighters to aid citizens through increased morale due to better quality time at home and better health through increased possibilities of rest cycles.

Finally, we believe that a change in schedule may have some trials, but overall will be an improvement to the department for its citizens and its personnel.

Information Links

▶ West Metro Study of 48/96

- <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwiQpPONurXaAhVQS60KHZd2CPsQFggxMAE&url=https%3A%2F%2Fwestmetrofire.org%2FDocumentCenter%2FView%2F3249&usg=AOvVaw35fZiql6fhw9fzA1yLDsiB>

▶ Round The Clock Systems (24/48 vs 48/96 Comparative Analysis) by Dr. Susan Koen.

- <https://pueblowestmetro.com/AgendaCenter/ViewFile/Item/821?fileID=1323>

▶ IAFC Final Report 2007, “The Effects of Sleep Deprivation”

- <https://www.iafc.org/topics-and-tools/resources/resource/sleep-deprivation>

Other Sources

- ▶ “The Management Effects of Firefighter Working a Consecutive 48-Hour Shift” By James Clack, Fire Chief Minneapolis, Minnesota (2003)
- ▶ “The Management Effects of Firefighter Working a Consecutive 48-Hour Shift—Where are We Now?” By Bryan Tyner, Asst. Chief Minneapolis, Minnesota (2010)