

# *The* 48/96

*Work Schedule*



*A comprehensive report on the 48/96 work schedule for consideration by the members of Greeley Firefighters Local 888 and their Families.*

## **INTRODUCTION**

The 48/96 schedule is not a theoretical concept in the fire service but a proven and valid schedule option. Since the early 1990's a growing number of fire departments have changed from work schedules like the one currently used by UCFRA, called the "Modified Kelly Schedule", to a "48-96 work schedule", or "48/96". Though first introduced to firefighters in Southern California in an effort to address the need for affordable housing and the associated long commutes, other benefits of the new schedule were discovered by Labor and Management in the fire departments that have switched to the 48/96.

The information that follows provides a factual report outlining the advantages, disadvantages, potential negatives, positives, and best practices associated with implementing a trial 48/96 work schedule within UCFRA.

The possibility of a trial program and potential switch to this proposed work schedule is in response to a grassroots effort of the Local 888 membership. The following information is presented to assist each Local 888 member and their families in making informed decisions as to whether or not they would support a trial program of the 48/96 work schedule as a viable alternative to the current UCFRA schedule.



# GREELEY FIREFIGHTERS LOCAL 888 INFORMATIONAL REPORT: 48/96 WORK SCHEDULE

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## PURPOSE

This proposal is not to immediately switch to a 48-96 schedule, but to implement it for a trial period starting April 15<sup>th</sup>, 2010 (this specific date is explained below). Approximately 2/3 of the way through our trial period, in November of 2010, a second vote will be taken to either continue on the 48-96 schedule or go back to the Modified Kelly schedule. The end date of the trial will be March 16, 2011.

Why April 15<sup>th</sup>, 2010? Starting this new schedule when the POT hours reset provides the cleanest transition. (See attached schedules for reference)

This goes back to the black hole of mathematics and science that we all know as "POT Hours." The 48-96 schedule is best achieved for accounting purposes by going from a 27-day work day cycle with 12 FLSA hours to a 24 day work cycle with 10 FLSA hours. POT hours are hours that we have been paid for, but not worked, in order to "balance" our paychecks with the City. Currently, the POT hours reset every 378 days. If we were to trial this schedule we would need to do it on the next "POT Hour Reset Date" in order to not owe the city money. The next reset date in 2010 is April 14<sup>th</sup>, putting us on a start date of April 15<sup>th</sup>. The POT hours would reset again on the 48-96 schedule 12 months later. Therefore, an approval from the membership puts us on a 12 month trial period. If the second vote from the membership stated that we were to revert back to the Modified Kelly schedule, we would switch back in May 2011.

## DISCLAIMER

It is anticipated that there will be members that are either passionately for or against the 48/96. It is Local 888's hope that all opinions expressed by the members be done in an open and constructive way. Members may voice their concerns and comments by sending them to [info@greeleyfirefighters.com](mailto:info@greeleyfirefighters.com) for posting on the [www.greeleyfirefighters.com](http://www.greeleyfirefighters.com) website.

## METHODOLOGY

In preparing this report, the established Local 888 work group chose to borrow from reports developed by other Fire Departments that have researched the 48/96 work schedule. This report is in no way attempting to tip the balance for or against a 48/96 trial period. Information used in the preparation of this report includes, but is not limited to the sources listed below:

- LAFD UFLAC Information report: 48/96 Work Schedule**  
<http://www.uflac.org/files/UFLAC%2048-96%20Color%20Primo%20v1.3.pdf>
- <http://www.48-96.com/48-96/Welcome.html>
- <http://www.westmetrofire.org/index.cfm?main.page=page&detailsid=217&catid=10>
- Numerous other Fire Department websites; Just do a search on 48-96 or 48/96.**

## OVERVIEW

The perceived advantages of the 48/96 include:

- Quality of work issues involving productivity, time management, training periods, crew continuity, and overall burnout.
- Quality of life issues involving family time, living expenses, recuperation periods, and reduction in number of round trip commutes to work.
- Organizational issues involving increase in morale, better productivity, and company continuity.

The perceived disadvantages of the 48/96 include:

- Quality of work issues involving fatigue and related side affect on customer service, impact on human relations, and call load.
- Quality of life issues involving child custody agreements, dependent care, time away from family, and holiday schedules.
- Organizational issues involving scheduling, training, and staff recall for overtime and second alarm situations.

## BACKGROUND

Currently, over 100 departments and agencies with diverse demographics, management structures, and overall philosophies are using the 48/96 work schedule. The departments that switched schedules saw the 48/96 as progressive change that addressed numerous issues. Most of the departments that adopted the 48/96 schedule were motivated by the reduction in commuting and the fact that employees could spend more quality time with their families. Many departments changed because they saw the positive benefits and improvements in morale in surrounding departments who had switched to the 48/96.

## 48/96 SCHEDULE MECHANICS

The Modified Kelly Schedule (our current schedule) consists of three alternating twenty-four hour shifts on-duty, followed by four consecutive twenty-four hour shifts off-duty.

<b>A-Shift</b>	<b>B-Shift</b>	<b>C-Shift</b>
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JUNE 2010						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

The 48/96 schedule consists of two consecutive twenty-four hour shifts on-duty, followed by four consecutive twenty-four hour shifts off-duty.

JUNE 2010						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## COMPARISON BETWEEN THE KELLY & 48/96 SCHEDULES

	<b><u>Modified Kelly (current schedule)</u></b>	<b><u>48/96</u></b>
<b>Work Cycle</b>	<b>9 days</b>	<b>6 Days</b>
<b>FLSA Period</b>	<b>27 Days</b>	<b>18 or 24 Days</b>
<b>Given Day Rotation</b>	A given day of the week is worked for 3 consecutive weeks & then not worked for 6 consecutive weeks	A given day of the week is worked for 2 consecutive weeks & then not worked for 4 consecutive weeks
<b>Four Days Off</b>	<b>40 per year</b>	<b>60-61 per year</b>
<b>Mornings at home</b>	<b>3 of every 9; 120 per year</b>	<b>3 of every 6; 180 per year</b>
<b>Entire Weekends Off</b>	<b>16-17 per year</b>	<b>26-27 per year</b>
<b>One Weekend Work Day</b>	<b>35 per year</b>	<b>16-17 per year</b>
<b>Entire Weekend Working</b>	<b>None</b>	<b>8-9 per year</b>
<b>Weekday Working</b>	<b>86-87 per year</b>	<b>89-90 per year</b>
<b>Commutes to Work</b>	<b>120 per year</b>	<b>60 per year</b>

## Organizational Considerations

The schedule will have very little effect on current policies and procedures. For the purposes of daily routines, vacation leave, sick leave, overtime, or other policies / procedures, each 24 hour shift is considered one shift. Each 48 hour shift is considered a rotation. We have attached a "DRAFT POLICY" to address the discretionary guidelines for BC's and/or Company Officers in regards to the second shift of a rotation based on call volume and/or workload for the first shift and the training schedule.

Recently, West Metro Fire completed a trial period with the 48-96 schedule and saw an impressive increase in the percentage of personnel wanting to change to the 48-96 schedule: 64% before the trial to 86% after the trial! West Metro runs out of 15 stations with their busiest engine running over 3500 calls per year. The West Metro switch to the 48-96 schedule has become one of the most documented studies of firefighting schedules ever completed as the study involved several outside agencies who evaluated the 48-96 schedule benefits when compared to the Modified Kelly schedule (our current schedule).

Saint Anthony's Hospital, contracted by West Metro, and JVA Consulting, contracted by Saint Anthony's Hospital to assist in the project, conducted a study in 2006 on West Metro Fire when they switched to the 48-96 schedule. Before the trial period, over half (52%) of the members thought that the overall advantages of the Modified Kelly schedule outweighed its disadvantages. However, after making the schedule change, a significantly greater proportion of members (68%) felt that the overall advantages of the 48-96 schedule outweighed its disadvantages. JVA Consulting developed focus group protocols and structured discussion questions and found that the 48-96 schedule had many positive results: increased productivity while on shift; increased amount of sleep for firefighters both ON and OFF shift; significant monies saved by the city due to lower overtime needed to fill sick leave time; and more efficient and higher quality time at home with families, "which little kids especially loved".

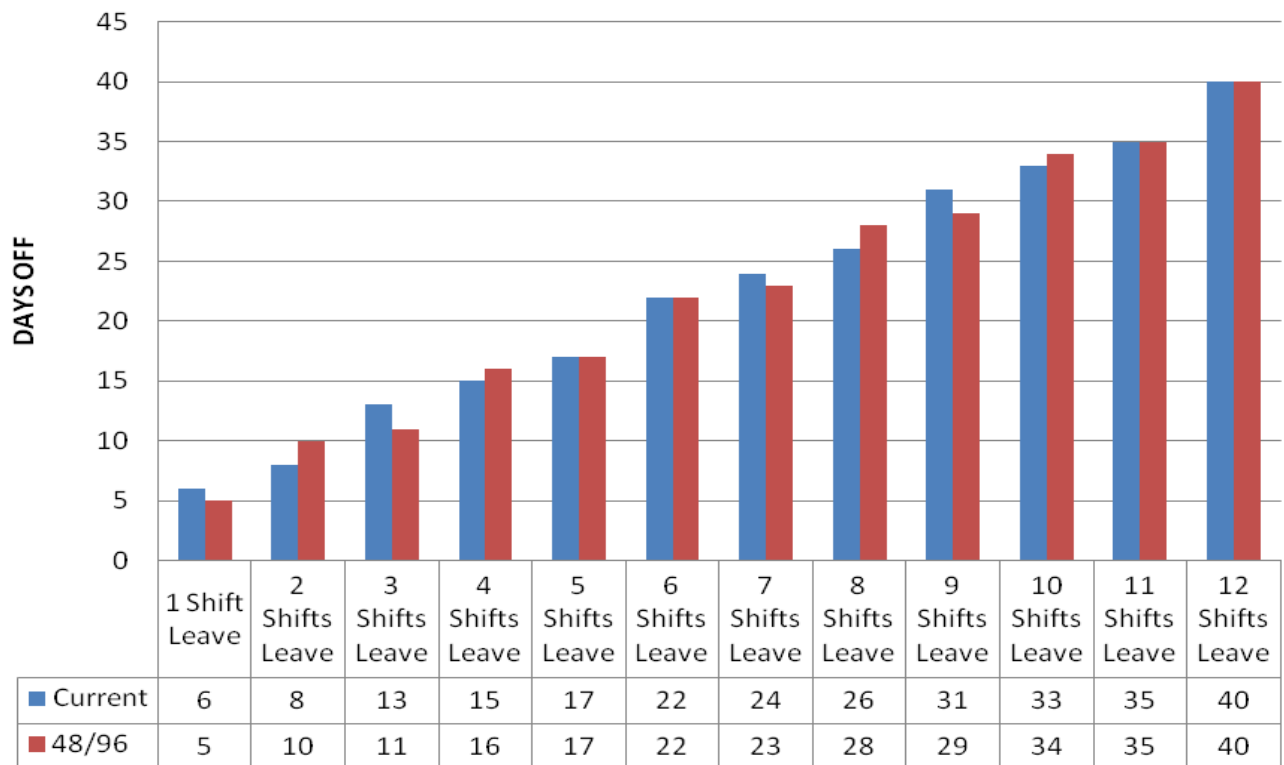
*[NOTE: West Metro is referenced heavily in this proposal because they are local, their busiest engine is similar to ours and they are one of the only departments known to have conducted extensive scientific research with outside agencies as to the benefits of the 48-96 schedule vs. the Modified Kelly schedule. They make these results readily available for use by the Fire Community.]*

## VACATION PICKS

Vacation picks are comparable between the two schedules as shown in the charts below:

	Current	48/96
1 Shift Leave	6	5
2 Shifts Leave	8	10
3 Shifts Leave	13	11
4 Shifts Leave	15	16
5 Shifts Leave	17	17
6 Shifts Leave	22	22
7 Shifts Leave	24	23
8 Shifts Leave	26	28
9 Shifts Leave	31	29
10 Shifts Leave	33	34
11 Shifts Leave	35	35
12 Shifts Leave	40	40

### VACATION PICK COMPARISON



## RESEARCH

The 48-96 schedule decreases fatigue, increases sleep, morale, quality time at home and productivity both on and off shift. While the 48-96 schedule may seem to perpetuate sleep deprivation and fatigue in an already difficult job and busy system extensive research and studies quantify increased productivity secondary to decreased fatigue. The question to ask is not how long a 48 hour shift is, because it is a long shift, no doubt. Instead, the question that needs to be asked is which schedule gives the most effective ratio between shift time and off time? Simply put, the 48-96 schedule allows personnel 50% more 4-days off, 50% more weekends off and 50% more sleep-in days at home where personnel are not having to get up early to go to work. Furthermore, the 48-96 schedule provides a more effective ratio between shift time and off time than the Modified Kelly schedule resulting in less fatigue and sleep deprivation while improving sleep patterns. Less fatigue is achieved through 3 primary ways:

1. The 48-96 schedule eliminates the very inefficient “tweener” days off, which have been shown to barely allow personnel time to be productive at home and spend quality time with the family, let alone get caught up on sleep.
2. In the worst case scenario of the Modified Kelly schedule, sleep deprivation will be spread over 5 days; a 4-day will not be long enough to recover from 5 days of sleep deprivation causing the sleep deprivation to carry over into the next rotation.
3. In the worst case scenario of the 48-96 schedule, sleep deprivation will be spread over only 2 days; a 4-day is more conducive for recovering from 2 days of sleep deprivation rather than 5. Additionally, the amount and proportion of 4-days to shift time in the 48-96 schedule allows more efficient time for extra sleep with less interruption to family life, personal time and at-home productivity.

The Saint Anthony’s study provides scientific evidence using sleep journals, focus groups and surveys to support that the 48-96 schedule is a more productive schedule and crews experience less fatigue getting more sleep both on and off shift. Here are the applicable excerpts from the 2006 Saint Anthony’s Research Executive Summary (they also include the research results for increased work productivity, moral and quality time with the family, as well as more efficient time off and higher productivity at home):

- The members slept more on average with the 48-96 schedule.
- The increased sleep was distributed throughout both ON and OFF shifts.
- Members slept fewer hours the night before a shift began on the Modified Kelly schedule in anticipation of getting up to go on shift. The 48-96 schedule minimizes this.
- West Metro saw sick leave hours used decrease 30% on the 48-96 schedule when compared to the Modified Kelly schedule. 2005 (Modified Kelly Schedule) Sick Leave Hours = 11,637 . . . 2006 (48-96 Schedule) Sick Leave Hours = 8,246 . . . this is a 30% decrease.

- Views regarding job satisfaction became stronger leading to an increase in overall morale.
- On average, the respondents reported a low degree of dissatisfaction with their patients. This dissatisfaction did not increase on the 48-96; in fact, it showed a trend toward being less.
- Members felt that when compared to the Modified Kelly schedule, the 48-96 schedule interfered significantly less with leisure activities, household activities, and non-household activities like going to the bank.
- The majority of families liked the 48-96 schedule. 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.
- The majority of families felt that the 48-96 schedule 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.
- Most firefighters claim that they are less fatigued with the 48-96 schedule, which allows them to get more rest during time off. With the Modified Kelly schedule, many felt that the in-between days were useless because they were so tired, or they couldn't sleep because they were so busy getting other things done. "It wasn't easy to switch gears," one firefighter said. With the 48-96 schedule, they claim to have less burnout and feel they can cope better so that tasks do not accumulate or overwhelm them as much.
- They are able to schedule more personal time for projects and socializing with friends.
- With the new shift, firefighters have more full weekends off. Many say they have more time with their children (especially with regard to custody time), to attend their extracurricular activities and school events. Some say that it feels like there are more days off, even though there are not.
- According to several firefighters, the 48-96 schedule allows for increased productivity at work, because when they are at work for two days they are focused on work, and when they get off they can go home and be focused on home life for four days. While at work they can spread projects over 2 days rather than barely getting into a project and having to "shut it down and get the desk all cleaned up for shift change." This equates to less stress and more balance between work and home (i.e. "more work stays at work"). As a result, firefighters feel better physically and mentally and are able to exercise more frequently (on the second morning of the shift since they are already at the station).
- They also found it easier to deal with family on the 48-96 schedule because they are happier at work and at home. They report that their partners/spouses like the 48-96 schedule because firefighters have more home time, and when they are home, they are easier to get along with because they are not as tired and grouchy.

- Another plus is decreased stress and anxiety related to fewer shift changes in the mornings. Shift changes are stressful when a call comes in minutes before a shift change. Since firefighters stay on duty for two consecutive mornings on the 48-96 schedule, there are half as many shift changes to deal with. The result is greater efficiency with customers receiving better service.
- Firefighters are able to spend more time with their children, spouses, friends and family. As one firefighter shared, he now gets to put his child to bed more often because of the increased amount and frequency of four days off. It is an unintended benefit for young children, as one dad pointed out, “because four days at home have more of an impact on young children than having a parent gone for two consecutive days.” One dad speaking about his young daughter stated, “...it’s like I am never gone to her.”
- Firefighters are often willing to work 48 consecutive hours for overtime or a trade. They do so while carrying the additional load of their current shift schedule and have never insisted on a policy against such arrangements. Therefore, a 48 hour shift is not far off from current occasional practices.

In summary, the misconception that the 48-96 schedule will increase fatigue is an understandable concern. However, this view is not supported by the Saint Anthony’s/JVA study or feedback from other polled departments. To the contrary, the 48-96 schedule improves firefighter’s sleep patterns and decreases the length of time in which they are in a sleep deprived state. Additionally, the 48-96 shifts allow for greater productivity at work, increased morale, increased amount of quality family time and more efficient time off allowing for better recovery for the firefighter.

## **TRAINING**

While scheduling training will obviously have to be different, there is no less training as there are numerous options for scheduling. For example, the attached training schedule details Fire Department Training and CME training. These training sessions are scheduled as much as possible on the first day of the 48 hour shift so that the second day can be flexible to the needs of the crew. However, when a crew is scheduled to work a holiday, training may need to be scheduled on the second shift of that rotation. Additionally, night training becomes a valid option, say from 7-10 pm. This not only potentially frees up the second shift, but sharpens an important skill set; night-time operations. The training calendar example allows for numerous company level training sessions during the month. Spreading out the training days also allows the instructors to have a day or more between training sessions rather than having to do back to back days. Having a small break between training days will improve the quality of training delivered on that last day as an instructor.

## **Key advantages of the 48-96 schedule**

- 50% increase in 4 days off per year going from 40 to 60 per year.
- 50% increase in “sleep-in days” (not having to get up early to go to work) going from 120 to 180 days per year.
- 50% increase in complete weekends off going from 17 to 26 per year.
- 50% decrease in working “half weekends” per year (only a Sat or Sun) going from 35 to 17 per year.
- Eliminates the “tweener” days, which seem to get lost as they are a very inefficient day off in terms of quality family time, productivity at home and catching up on sleep. For many, the current schedule feels 5 days long with 2 “at home breaks”.
- 50% decrease in days commuting. Even someone who lives in town and has to only commute 10 miles round trip could save approximately \$100 per year in gas, assuming they get 20 miles to the gallon and gas costs \$3 per gallon. Commuters from “suburbs” such as Windsor, Eaton & Kersey could save \$200-\$300 per year with the same assumptions. For commuters of longer distances, obviously the cost reduction would be more significant. Furthermore, the 48-96 schedule decreases wear and tear on vehicles as well as negative effects on the environment.
- Less “redundant” duties, such as routine, conference calls, checking apparatus, etc.; complete them once at the beginning of every 48-hour shift. This provides additional time for crew productivity and other miscellaneous duties and projects, such as pre-plans, “special projects”, “crew specific” training, “special interest” training, etc.

## **Potential disadvantages of the 48-96 schedule**

- Work a complete weekend (both a Saturday & Sunday) roughly once every 6 weeks; equates to approximately 8 times per year depending on what shift you are working.
- There is the possibility that shifts may fall on December 24 & 25. For all 3 shifts combined, this happens 3 out of every 8 years. Some departments remedy this situation by “flip-flopping” with the previous or following shift depending on the year’s schedule. This can be accomplished by adding that change in the MOU to start with and then adding it to the next Contract. Or, once every 8 years each shift just works both Christmas Eve and Christmas Day.

- Face-to-face communication between day personnel and line personnel becomes challenging when a crew is in their weekend rotation (F/S, S/S or S/M). This issue is exacerbated if a weekend rotation lines up with a run of 1-2 holidays. There are times when day personnel will be unable to make a “face-to-face” with line personnel for 2-3 weeks, unless they meet on the line personnel’s off-day. However, West Metro did not report this as being an “issue”, but rather something that a department will have to consider and make adjustments for.
- Families with special custody issues, special needs kids, or special pet situations will need to make special arrangements.
- It is a long shift. And, at the end of 48 hours you are definitely ready to go home. But, it is worth it because it is nice to always go home to 4 days off!”

## **CONCLUSION**

One cannot hate a schedule they have never worked no more than another can say they love a schedule they have never tried. Once the misconceptions are addressed, the 48-96 schedule truly has the interests of the most important asset of UCFRA in mind – its firefighters. The 48-96 schedule allows us to recoup our sleep faster, decreasing the amount of time we spend in a sleep deprived state. Additionally, the 48-96 schedule increases morale as well as our productivity at work and at home and creates more quality time off with our families. All this is accomplished by eliminating the time “lost” from the very inefficient “tweener” days creating a more efficient schedule with a better ratio between shift time and off time.

While the fire service is often resistant to change, the fact is that the only thing constant in life is change. Therefore, we should have no hesitations attempting something that quite possibly could be one of the best things that we could do for ourselves and the longevity of our health and family life. However, “research shows” or “other departments say” only goes so far. We have to try it for ourselves and only then can we permanently bury the idea or embrace it as something that will work for us here at UCFRA as we move into the future.