

Implementing Crew Endurance Management

*What Worked
What Didn't Work
and Why*

Crew Endurance Defined

- Crew Endurance refers to the ability to maintain performance within safety limits while enduring job-related physiological and psychological challenges

**The Crew Endurance Management System (CEMS)
is the roadmap for optimizing Crew performance**

More about CEMS



- Crew endurance is about more than just fatigue counter measures. Some of the physiological and psychological factors (risk factors) which affect employee endurance include:



- Quality and duration of sleep
- Sustained effort and hours of wakefulness
- Stability of the person's biological clock
- The internal state of the person
- Diet
- Physical conditioning

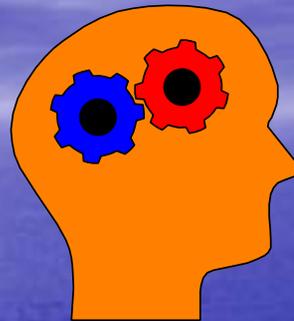


Even More About CEMS

- OTC Medications awareness
- Prescription Medication awareness
- Caffeine management
- Work and sleep environment
- Hydration – Water! Accept no substitutes
- Work schedules
- Safety
- Individual informed choices



History of CEMS at ACBL



Expansion of Program

Coaches Training

AWO

2003

Awareness Campaign

Birmingham Workshop

First Vessels Implemented

2001

Initial Workshop Held

Enter Partnership

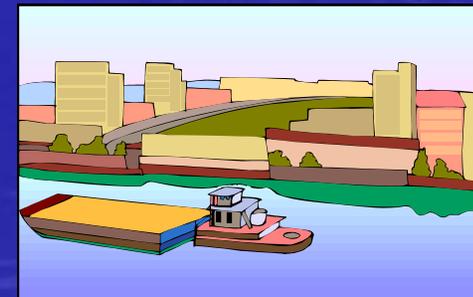
Crew Alertness

Circadian Technologies Proposal

1999

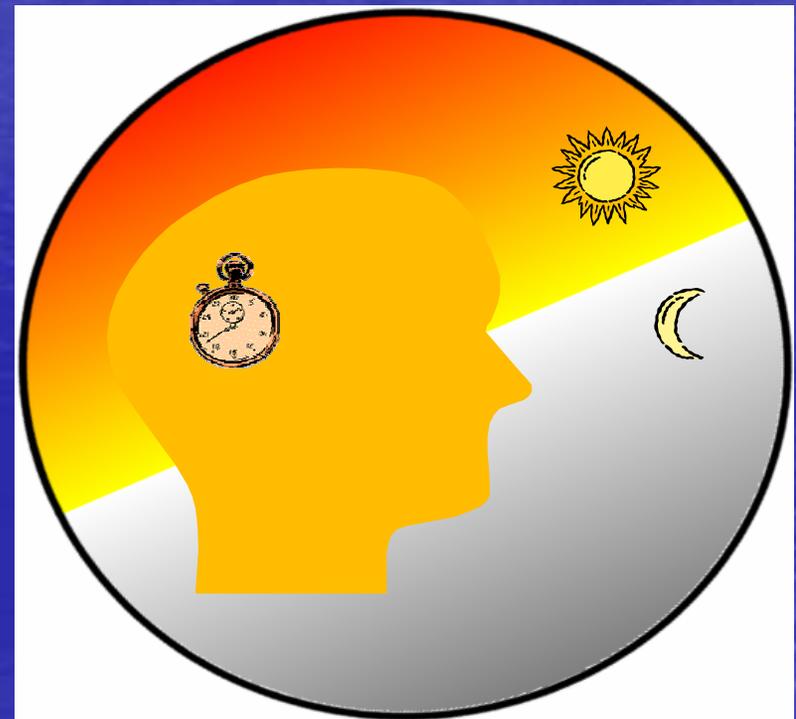
Incidents and time of day

Safety Dept. Initial Research



Implementation Challenges

- Support Infrastructure
- Cultural Resistance to Change
- Misinformation
- Adequate Coaches
- Individual Buy-in
- Being Overly Critical



Components of an Endurance Program

- Management Commitment
- Employee Awareness and Education
- Development of a site specific plan
- Environmental improvements
- Light management
- Coaches
- Changing work schedules/times

The CEM Process

Development: 1

Set Up
Working
Group

Educate
Working
Group

Analyze
Current
Situation

Create
Crew
Endurance
Plan

Deployment: 2

Educate
Entire
Crew

Implement
CEP

Coach
Crew

Assessment: 3

*Working Group
Modifies Cycle*

Evaluate
Results



Recommendations

**This napping
Policy is great!**



- Management Commitment
- Begin Awareness Campaign Now!
- Be Patient

“Is it worth the effort?”

- Increased ability of workers to perform job functions safely and efficiently
- Long term health benefits to employees, and a corresponding decrease in health care costs for the organization.
- Utilization of scientific knowledge to:
 - Improve the decision making abilities of your employees.
 - Enhance quality of life for your workers.
 - Increase safety and efficiency of your operations.
 - Set a new standard of operational excellence in the your industry.

Conclusions

- It is not easy to implement an Endurance Management Program. There will be resistance from both management and workers. But, if you are patient, the results can far outweigh the challenges. The net result will be a safer, more efficient workforce.



Thank You