

# Individual Factors, Stress and Stress Reduction in the Air Show Environment

Or how LIFE tends to get in the way  
of our flying

## Individual Factors, Stress and Stress Reduction in the Air Show Environment

Or how LIFE tends to get in the way of our flying

---

---

---

---

---

---

---

---

## Human Factors

- Team Members
- Planning
- Time Management
- Workload Management
- Communication & Decision-making

- Relations
- Situational Awareness
- Error Management
- Individual Factors, Stress & Stress Reduction

---

---

---

---

---

---

---

---

## Individual Factors and Stress Reduction

- Emotional Climate
- Business pressures and morale
- Fatigue
- Incapacitation
- Stress
- Managing Stress
- Self Evaluation

---

---

---

---

---

---

---

---

## Emotional Climate

(What's happening around you)

- Perceptions of safety
  - Poor Brief, hot ramp problems, CFR
- Clarity of job and task expectations
  - Circle the jumpers, race jet truck, squirrel cage
- Participation and involvement
  - Does your opinion count? (new people)
- Freedom of expression
  - When you don't feel like you can speak out

---

---

---

---

---

---

---

---

## Business Pressures & Personal Morale

- A major stressor
  - Financial
  - Partnerships/Teams
  - Workload Distribution
  - Trouble booking shows and getting paid

11-6 Rev 0

---

---

---

---

---

---

---

---

## Fatigue

- Physiological
  - Your need for sleep and rest (8 hours)
- Subjective
  - How sleepy you feel

11-7 Rev 0

---

---

---

---

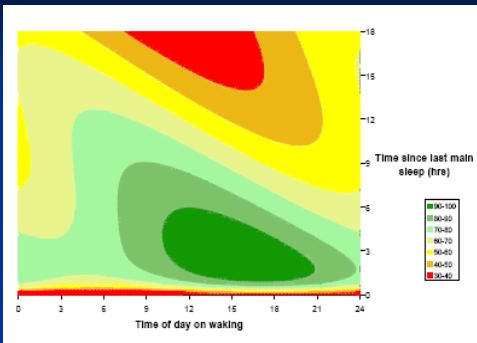
---

---

---

---

## Alertness Model



11-8

Ref: Centre for Human Sciences at Farnborough

Rev 0

---

---

---

---

---

---

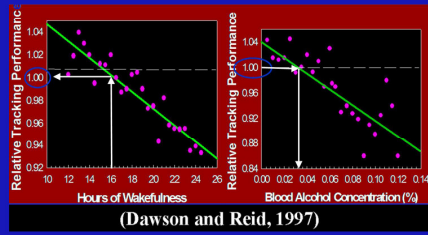
---

---

---

---

## Sleep Loss Is Like Alcohol Intoxication



11-9

Rev 1

---

---

---

---

---

---

---

---

---

---

## Incapacitation

- Major
  - Obvious
- Subtle
  - Insidious
  - Memory loss
  - Tumbles

11-10

Rev 1

---

---

---

---

---

---

---

---

---

---

## Sources of Stress

- Domestic
  - Can be distracting
  - Inescapable
- Environment
  - Task specific
  - Organizational

11-4 Rev 0

---

---

---

---

---

---

---

---

## Stress

- Physical
  - Heat, noise, vibration, onset of fatigue
- Reactive
  - Time pressure, unexpected situations
- Psychological
  - Emotional upset, worrying about problems

Rev 0

---

---

---

---

---

---

---

---

## Managing Stress

- Physical
  - Get cool, stay hydrated, deal with it, etc.
- Reactive
  - Establish priorities, Delegate tasks
  - Build time, Follow your routine
- Psychological
  - Acknowledge
  - Communicate

11-5 Rev 0

---

---

---

---

---

---

---

---

## Evaluating yourself

- Self Assessment (checklist)
  - Honest
  - Blameless
- Communicate (Talk to someone)
  - A Friend
  - A Peer

---

---

---

---

---

---

---

---

## Personal Condition

- Illness
- Medication
  
- Stress
- Alcohol
- Fatigue
- Environment

---

---

---

---

---

---

---

---

## Flying

- How bad is it?
  - Back off
  - Have a colleague monitor your performance
  
  - Don't Fly

---

---

---

---

---

---

---

---

## The Bottom Line You decide

- Only you know your condition
- You are PIC
- Only you can decide

---

---

---

---

---

---

---

---

## Individual Factors and Stress Reduction

- Emotional Climate
- Business pressures and morale
- Fatigue
- Incapacitation
- Stress
- Managing Stress
- Self Evaluation

---

---

---

---

---

---

---

---

## Questions

---

---

---

---

---

---

---

---



When not performing in his Stearman, Gary Rower is founder and senior partner of Century CRM, the nation's leading aviation human factors provider and the only stand-alone CRM provider certified by the FAA. He can be reached at [gary@garyrowervintageairshows.com](mailto:gary@garyrowervintageairshows.com).



[www.centurycrm.com](http://www.centurycrm.com)  
[www.garyrowervintageairshows.com](http://www.garyrowervintageairshows.com)




---



---



---



---



---



---



---





## Stress Test

This is a list of stressful events in your life which have different number values to show the pressure that each adds to your life. Sit back, take a moment, and review your life over the past 1 to 2 years. Go through the following list. Check the box of those stressful events that have happened or are taking place in your life. When you are done add up the values of all that you have checked to see your Stress Score.

- |                              |   |                             |                                   |
|------------------------------|---|-----------------------------|-----------------------------------|
| 100 <input type="checkbox"/> | Death of a spouse   | 73 <input type="checkbox"/> | Divorce                           |
| 36 <input type="checkbox"/>  | Change to different line of work  | 37 <input type="checkbox"/> | Death of a close friend           |
| 65 <input type="checkbox"/>  | Marital separation (or separation from any major intimate relationship) | 63 <input type="checkbox"/> | Jail term                         |
| 63 <input type="checkbox"/>  | Death of a close family member  | 53 <input type="checkbox"/> | Personal injury or illness        |
| 44 <input type="checkbox"/>  | Major change in health or behavior of a family member                   | 47 <input type="checkbox"/> | Being fired from work             |
| 40 <input type="checkbox"/>  | Sexual difficulties   | 45 <input type="checkbox"/> | Marital reconciliation            |
| 39 <input type="checkbox"/>  | Gain of new family member thru birth, adoption, or remarriage           | 45 <input type="checkbox"/> | Retirement                        |
| 39 <input type="checkbox"/>  | Business readjustment   | 40 <input type="checkbox"/> | Pregnancy                         |
| 38 <input type="checkbox"/>  | Major change in finances  | 50 <input type="checkbox"/> | Marriage                          |
| 35 <input type="checkbox"/>  | Increase in number of arguments with spouse                             | 23 <input type="checkbox"/> | Trouble with boss/superior        |
| 31 <input type="checkbox"/>  | Mortgage or loan for major purchase (i.e. home, etc.)                   | 30 <input type="checkbox"/> | Foreclosure of mortgage or loan   |
| 29 <input type="checkbox"/>  | Changes in responsibility at work                                       | 29 <input type="checkbox"/> | Son or daughter leaving home      |
| 28 <input type="checkbox"/>  | Outstanding Personal Achievement  | 26 <input type="checkbox"/> | Spouse stops work outside of home |
| 29 <input type="checkbox"/>  | Trouble with in-laws  | 26 <input type="checkbox"/> | Going back to school              |
| 25 <input type="checkbox"/>  | Change in living condition (rebuilding, remodeling)                     | 20 <input type="checkbox"/> | Change in residence               |
| 20 <input type="checkbox"/>  | Change in work hours or responsibilities                                | 20 <input type="checkbox"/> | Change in school                  |
| 24 <input type="checkbox"/>  | Revision/change of personal habits                                      | 19 <input type="checkbox"/> | Change in recreational habits     |

- |                             |   |                             |                             |
|-----------------------------|---|-----------------------------|-----------------------------|
| 19 <input type="checkbox"/> | Change in church/spiritual activities                             | 18 <input type="checkbox"/> | Change in social activities |
| 17 <input type="checkbox"/> | Purchase of major items (auto, computer, etc)                     | 16 <input type="checkbox"/> | Change in sleeping habits   |
| 15 <input type="checkbox"/> | Change in number of family get-togethers                          | 15 <input type="checkbox"/> | Change in eating habits     |
| 15 <input type="checkbox"/> | Vacation  | 12 <input type="checkbox"/> | Christmas                   |
| 11 <input type="checkbox"/> | Minor violations of the law (e.g., traffic tickets, misdemeanors) |                             |                             |

Your overall Stress Score is:

**This scale shows the kind of life pressure that you are facing. Depending on your coping skills or the lack thereof, this scale can predict the likelihood that you will fall victim to a stress related illness. The illness could be mild - frequent tension headaches, acid indigestion, and loss of sleep to very serious illness like ulcers, cancer, migraines and the like.**

## **LIFE STRESS SCORES**

- **0-149** Low susceptibility to stress-related illness
- **150-299** Medium susceptibility to stress-related illness.  
Learn and practice relaxation and stress management skills and a healthy well life style.
- **300 and over** High susceptibility to stress-related illness  
Daily practice of relaxation skills is very important for your wellness. Take care of it now before a serious illness erupts or an affliction becomes worse.