

## Log Book Activity Record: Examples

### Example 1: Human factors integration associated with an upgrade to a sonar system within a large engineering project

Date: September 2002 – March 2003

60 person days

#### Summary of activity

Human Factor's support to the design and evaluation of Sonar Equipment under MOD procurement.

#### Details of personal involvement

As the Human Factors specialist on this project I needed to interact within a multi-disciplinary team. I reported to the Chief Engineer and I provided input to the engineer's design specifications and safety cases. I was involved in meetings with the customer and was required to give presentations of my findings. I was responsible for all Human Factors activities and had a student working with me for some of the time.

#### Details of ergonomics involved

A detailed task analysis of existing Sonar Operator's activities were captured using the Microsaint tool. Areas of high workload were identified and various HF issues highlighted. A new set of display formats were developed using Def Stan 00-25 guidelines. A User Working Group was set up comprising Operators and various MOD stakeholders. A prototype was developed and evaluated resulting in the definition of an outline design specification.

The following reports were produced:

Minutes of 3 working Group Meetings

Workload Evaluation Report

#### Details of professional skills employed

Application of ergonomic principles and practices.

Team Leader – adherence to project manager to meet tight timescales.

Presentation skills using Microsoft Powerpoint to present findings to external customer.

Communication skills in the interpretation of user requirements into engineering requirements.

#### Comments on how this activity has benefitted your professional development

This activity has given me a good insight into the role of Human Factors within a Defence environment. I have become familiar with Human Factors Integration requirements and have developed my knowledge of task analysis techniques.

*[The following comments, and all those that follow, from mentors and assessors are just here to show what might be written. They would normally be written on other forms specific for their comments.]*

#### Mentor's comment

*Sandra exhibited excellent knowledge of task analysis techniques and HCI principles. She interacted very well within the large project team and gave the customer every confidence that Human Factors issues were key drivers in the design, development and integration of the new Sonar equipment.*

### **Assessor's comments**

*Good overview of ergonomic principles and practices applied although no mention of any planning documentation that should have preceded this type of activity. I assume that the only output from this activity was an outline display design specification. A summary list of outputs from the activity is useful to the assessor.*

## **Example 2: Delivery of a manual handling training course**

**Date: July 2003 – August 2003**

**25 person days**

### **Summary of activity**

Preparation and delivery of manual handling training customised for a food processing company.

### **Details of personal involvement**

I was acting in a Consultancy role for a specific Client. I discussed the content of a variety of our manual handling and industrial ergonomics course with our Client. We customised the material to address their specific concerns. I designed specific work exercises to help compensate for work related strain.

### **Details of ergonomics involved**

The application of biomechanics, anatomy and physiology to the manual handling task.

### **Details of professional skills employed**

Presentation skill

Demonstration skills

Motivation skills

Application of manual handling principles

### **Comments on how this activity has benefitted your professional development**

This project has benefited my professional development by enabling me to design a course from scratch in consultation with the customer. It has increased my knowledge of manual handling techniques.

### **Mentor's comment**

*Richard has demonstrated that he not only knows how to apply ergonomics in a consultancy capacity but is also able to teach other professionals the fundamental issues that enable them to apply them in their own workplace.*

### **Assessor's comments**

*This log-book entry is a bit light particularly in the area of ergonomics skills applied. I would have expected to see some mention of the Health and Safety Guidelines pertinent to this task. In addition there should have been some mention of the length of the course and the number of attendees. There is no mention of any course evaluation that should have taken place and any improvements that could be made. I would expect a course overview to be submitted with this type of log book entry.*

## Example 3: Design and Assessment of Warning Signals within the Rail domain

**Date: February 2002 – July 2002**

**130 person days**

### **Summary of activity**

A number of railway line warning and speed signs were assessed by train drivers for their ease of identification, visibility, legibility and interpretation. A series of user trials was carried out involving a range of train drivers, which resulted in a large volume of data being generated. This data was analysed and recommendations for the most effective signs were made.

### **Details of personal involvement**

I initially devised a plan of action, which was agreed with the customer. I was involved with the design of the new signs in consultation with Subject Matter Experts. I designed and administered the questionnaires with the subjects. I presented the findings to the Customer.

### **Details of ergonomics involved**

A questionnaire was developed and performance metrics defined. Data recording methods devised. New signs developed in accordance with ISO 9241 guidelines. Detailed analysis of user trial questionnaire data, ratings data, checklist data was carried out.

### **Details of professional skills employed**

Analytical Skills, Data presentation and report writing skills. Communication skills in running trials and interacting with Train Drivers. Presentation skills .

### **Comments on how this activity has benefitted your professional development**

I was able to take early conceptual designs through user trials and develop the designs through to production. I found the early user input to be essential in this type of activity. I learnt a lot from problems encountered in the data processing aspects in terms of the amount of data that needed to be analysed within the time available.

### ***Mentor's comment***

*Julia was very successful in this project and was able to provide the guidance that the customer required. However she caused problems for herself in the over ambitious definition of data recording requirements and found herself drowning in data but she has learnt from this experience and I would not hesitate in putting her forward to project lead the next phase of work.*

### ***Assessor's comments***

*This was a good input in outlining the work carried out and problems encountered. A description of reports produced would be useful. In addition the techniques used for data analysis including any statistical evaluation used should be included.*

## Example 4: Update to safety procedures within large refinery

**Date:** September 2000 – December 2000

**85 person days**

### Summary of activity

Rationalisation of all procedures and working practices within a large refinery's individual assets to ensure the use of standard procedures in all locations.

### Details of personal involvement

Working as part of a team of consultants and technical authors, I was involved in the development of a standard procedural risk assessment and document control process. I audited some of the occupational health and safety procedures including working with visual display screens, working with asbestos procedures and job safety assessments.

### Details of ergonomics involved

The review of procedures involved gathering all existing procedures, identifying common aspects, ensuring a note was taken of areas in which procedures had to be carried out differently and a compliance check against the relevant legislation. Ensuring that the appropriate level of guidance was included in each procedure and that information was accessible to the end user.

### Details of professional skills employed

Compliance with health and safety standards.

Communication with other team members.

Report writing skills to rationalise the procedures to ensure common goals were met.

### Comments on how this activity has benefitted your professional development

The main challenge in this project was to ensure that the final procedures met the requirements for all areas of application. This gave me a good insight into the health and safety legislations and gave me scope to ensure that the procedures were compliant with adequate guidelines and checklists.

### *Mentor's comment*

*This task was carried out to the complete satisfaction of our client. Patrick interacted well within the team and carried out all tasks within cost and time budgets.*

### *Assessor's comments*

*A list of the source material in terms of the relevant Health and Safety legislations and a summary of the reports produced would have provided good evidence.*

## Example 5: Ergonomic assessment of control room

**Date:** November 2001 – April 2002

**100 person days**

### **Summary of activity**

The control room for a roadside rescue and recovery control centre was redesigned and a full ergonomic assessment carried out.

### **Details of personal involvement**

I carried out several visits to the site to evaluate the requirements of all control room users. I took measurements of the external room dimensions and required equipment and carried out an evaluation of the space requirements taking account of compliance with the ISO standard 9241. In conjunction with the structural and electrical engineers design proposals were drawn up.

### **Details of ergonomics involved**

Function and task analyses were carried out to establish the operator tasks, roles and responsibilities. Link analysis was carried out to determine the communication requirements between the 2 supervisors, 2 technicians and 8 operators. Workspace analysis was carried out using a computer-based mock-up to evaluate space requirements and traffic routes. Emergency egress solutions were evaluated to ensure safe evacuation within the time required.

### **Details of professional skills employed**

Communication skills were used to elicit the required information. Analytical skills and computing skills were used to input the information into WORKMATE, the CAD tool that was used on the project. Presentation skills were used to present my findings. Project management skills were used to control the budget that I was given.

### **Comments on how this activity has benefitted your professional development**

This has increased my understanding of workspace issues and the tools and techniques associated with optimising the workspace layout.

### ***Mentor's comment***

*Charles tackled a difficult task with enthusiasm and professionalism. He demonstrated a good understanding of the users' roles and responsibilities within the control room. He was able to think laterally to overcome some of the space problems.*

### ***Assessor's comments***

*A good overview of the task carried out. I would expect to see some mention of a Human Factors Plan and supporting documentation covering interim and final reports.*