
From: Tom Hickman - TSS
Sent: 31 March 2006 10:36
To: Pat Lyden; Silviu Rosu - TSS
Subject: SDS Schedule - Status Report
Attachments: SDS - Progress Curve's Rev.01 30-Mar-06.xls

Pat/Silviu,

I recognise that we have been asked not to be too negative about the performance to date of SDS, but would like to record the following.....

As we discussed yesterday I have serious concerns wrt the SDS, as yet incomplete, schedule. Having done some initial work on their latest submission dated 22nd March which we recognise is somewhat short of being complete, and which indicates a completion of Detailed Design in February 2007 I have turned my attention to the copy of their schedule included in the contract document.

I have created graphs for Requirements Definition, Preliminary Design, Detailed Design and Overall Design which are attached.

This schedule shows commencement of the Design Phase 1st July 2005.

As this did not start in earnest until 1st September 2005 I have taken all the schedule dates and moved them out 2 months to compensate.

Their schedule indicates a total man-hour content of 269,775 for the combined Lines 1 & 2 design but once I had removed the sections for Gogar - Newbridge, Leith Depot and Granton - Newhaven this dropped off to 220,725mhrs which at £80/hr (the figure Carla told us was used in the schedule), equates to £17,658,000.

I have attempted to use this schedule to create a "baseline" to try and gauge where SDS really are/should be with the design and make the following observations

- SDS (Debbie Black) indicated on 17th March that their forecast total man-hour spend will be approx. 199,444mhrs
- SDS schedule submission of 22nd March contains only 115,984mhrs so I have pro-rata all calculations to the 220,725mhrs contained in their contract schedule.
- SDS schedule of 22nd March indicates earned hours based on activity percent completes against various activities in Requirements Definition and Preliminary Design with nothing earned in Detailed Design. I have taken these earned hours as a percentage of the total budgeted hours in that schedule and applied the same percentage to the "baselined" schedule containing 220,725mhrs.
- This indicates the following
 - Requirements Definition is planned as 100% and is reported in their February progress report as complete but in the schedule has only earned 96% of the man-hours.
 - Preliminary Design is planned at 70.3% in the "baseline" schedule, but taking the earned hours from the 22nd March schedule as a percentage and pro-rata into the "baseline" schedule would indicate they are actually closer to 6.8%
 - Detailed Design is planned at 8.1% in the "baseline" schedule, but there are currently no earned hours in the 22nd March schedule.
 - Overall Design is planned at 39.9% in the "baseline" schedule, but taking the earned hours from the 22nd March schedule as a percentage and pro-rata into the "baseline" schedule would indicate they are actually closer to 20.2%. As they had actually reported 14% complete overall to end of February this is maybe not too far away.
- Other indicators would be a much simpler overview of the fact that if the 220,725mhrs is around about the correct figure they still have approximately 176,000mhrs to "earn". If they indeed plan to finish at the end of Feb 2007, then given there are 11 months left from 1st April 2006 to 28 Feb 2007 inclusive this would indicate they would have to earn approx. 16,000mhrs per month, with an average of 22 working days per month would be 727mhrs/day over an 8hr day = 91 persons per day. Recognising that there will be peaks in this schedule then the number of required personnel working through the design will be in excess of 100 persons to meet the schedule. I know this is very much a "finger in the air" calculation but it does raise the issue of outstanding man-hours v available suitable personnel.
- Finally, if you look at the last of the graphs attached, I have created a forecast line based on the previous 6 months averaged earned hours which would indicate that it will be nearer Feb 2008 rather than Feb 2007 before the design is complete if they continue at the present rate.

I know we expect to receive another submission on 7th April 2006 which is supposed to be the final issue which can be used as a baseline, complete with all man-hours and resources but in reality it will probably be sometime w/c 10th April before we can get anything useful from it.

Note this will be 7 months into an 18 month Design Schedule before the schedule is available !!

Tom