

Tony Butina Video Interview Transcription

Integrated Logistics Support & Analysis

One of the things we did early in the program was to try to identify a customer and we found out that the Missions Operations Directorate were the people that we needed to support with our LSAR products. So these products were developed by the contractors and it was a really big payoff because the data was fresh and, when it was implemented and these repairs were implemented, we hardly had any issues. I think there was one minor issue with a little bit of a tolerance. Part of that was because of the validity and the ground checks and any kind of dry runs and fit checks that we could go through to make sure that that was correct and it was tweaked, but it was all done prior to the astronauts getting their hands on it and actually doing it. Another aspect was photography and closeout pictures. We made sure we took as much pictures as we could of what the box would be like, whether its installed or uninstalled, so that there was something for the ground personnel to look at and even send up to the astronauts and say here's what it should look like when you get to it, and there was no going back later on in years when the contracts were closed trying to dig things out of the cabinets finding out how you had to go fix something.

Why is logistics on Space Station? It's kind of an interesting story. I don't really know other than we believe somebody at NASA Headquarters said you need to do LSA and so we wound up doing it and we brought on a bunch of contractors to do that. Shuttle didn't do that and I think that's where the lesson learned came from was you need to have some LSA and logistics people on this program early and so we showed up and we did the things that Shuttle didn't do like get in there, maybe not as early as we would have liked, but we were at the CD phase. Shuttle had some type of logistics program, but it just never took off until later in the years because of some money issues and design issues, and by then they had to go back and dig through some file cabinets to find data and they had to go back and reconstruct some things so that they could do the maintenance they needed to do. Shuttle landed. It didn't stay up there 24/7 like station, but they still had to go back and perform that maintenance and there was a penalty to pay in cost of, what we like to say in logistics, pay me now or pay me later. I think Shuttle paid later. Station paid now.

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The lesson for exploration as far as LSAR and getting that maintenance data is that you need to get it while its fresh. You need to get it while the design people are there. You need to test it. You need to validate it. You need to fit check it so that when you have to pull that procedure in space and there ain't no coming back, it needs to be correct. You need to have the data correct so that you can get it done, get it done quickly and get it done safely.

We have talked about a lot of logistics issues during this session and lessons that we had learned. Feel free to contact me at the Johnson Space Center if you have any additional questions and if I'm not there you'll be able to contact logistics people and get the answers you need.