

Transition to Hypack

Terrell Smith

Hydrographic Survey Coordinator

US Army Corps of Engineers

28 October 2010

Galveston District – 2010 Dredging Conference

Custodians of the Coast



®

US Army Corps of Engineers
BUILDING STRONG®



Transition to Hypack Survey Software

The Galveston District is currently making a transition to Hypack software as the primary survey software throughout the District.



Current Software Concerns

- The Galveston District has been using a DOS based software for hydrographic survey data collection since the mid 1990's.
- The software was proven to be robust, simple to utilize, and has many good features.
- Due to more advanced equipment and the need to have a Windows based survey program, the District is forced to move to something different and more adaptive to sharing information with industry.



Decision to Move to Hypack

- After researching available software on the market and finding what the majority of industry is using, the District chose to transition to Hypack as the survey software of choice.
- This move will allow for better sharing of information between the Dredging Industry, Contract Survey firms, Ports and others without having to go through several conversion processes to provide and receive information.



Problems Encountered

- Initial attempts to create survey files with Hypack's Channel Design revealed problems with District Base Maps. Some were still in 1927 Datum, some were updated to 1983 Datum but were located in many places within the District. It became evident that the map data base needed to be corrected and properly organized.



Problems Encountered (cont'd.)

- Some maps were migrated to digital maps with inherent errors from years prior and older processes of calculating curve and other information.
- The rounding to 8, 10, and more decimal digits rather than 2 incorporated additional error.

Although errors are generally small in scale, they created problems with Hypack.



Improvements Within the District

- In addition to incorporating Hypack, the District has already begun an extensive process to Incorporate a GIS network to be more transparent with other Corps Districts.
- This involves updating Base Maps, Channel Framework, and other improvements that will make the Hypack transition progress at a faster pace.



Channel Design

- I'm convinced the Galveston District has probably the most complicated channel designs in the world.
- With transitions to different depths, widths, unique curves and other than normal places to create transitions, Hypack had problems.
- Hypack had issues with computing sections in some of the unique places required and would cause the software to create wild spikes etc.



Personnel Training

- One of the biggest problems any industry has with such a transition is to get a buy in by all personnel that will be included in the use of something new and providing appropriate training.
- After using a software that was developed exclusively for the Galveston District to accommodate numerous special features used by many offices in the District, some personnel still have reservations about the transition to Hypack.



Personnel Training (cont'd.)

- This will slow the transition somewhat, however after people see what Hypack can do for them and the District, they will eventually buy into the move.
- Some people just don't like change, are protective of things they know well, and some people will readily jump onto any form of change. That's just what makes each of us unique as individuals.



Conclusion

- Time to transition ?
- This is different for each entity, depending on how wide spread the transition will and how receptive personnel are to the move.
- The positive thing is that the transition is in progress and will be completed when everyone is confident working with Hypack.



Questions?

