

Question: What tasks must be accomplished to show that a Navigation System Model adequately captured the 'real world' for use in decision making?

Group A Breakout 1

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- Alternative destinations should be considered in more detail or with more vigor. For example, feed lots as alternate destination for grain.
- When we think of models we are really describing a group of procedures rather than a numeric model. The group was not considering a spreadsheet but a procedure.
- A stable time and space must be considered. Variability of estimates from time to time and place-to-place throughout the analyses. Is needed to be certain that the analyses do not just import a number because it is available and someone else developed it, but it should be relevant to the specific time and place of the analysis.
- Those numbers that have been developed by other people and are relevant to the specific analysis should be utilized. We need to realize that everything does not need to be accomplished internally.
- High quality scenarios and forecasts are necessary.

- Backcasting or hindcasting can be used to see how well the model reflects reality. If the data collected is appropriate then analyzing its ability to recreate or mimic actual data should reflect the validity of the model.

- The group recommends developing a standard group of procedures rather than a specific numeric model. Parameters should be specified in the procedures to give guidance for specific model development. Because the specific circumstances are so widely varied in different areas of the country, it can't be expected that a universal model will solve all the problems. Need to develop a set of guidelines to provide structure to future studies. There are existing procedures and guidance but each District is using its own interpretation.

- The procedures would include a checklist of things to consider in the analysis. A list of components should be developed, such as:
 - Was shipper behavior considered?
 - Was an analysis of various destinations included?Rather than a specific set of rules or a model that instructs the analyst on HOW to analyze the different destinations.

- With regards to using existing research or analysis, literature searches should be conducted of existing surveys and research. For example, elasticities come from users preferences, so as long as they are well defined they will not change over time but will change over space. The results from a literature search of existing studies on elasticities may or may not be good for the waterway. Smart people need to be involved to tell they apply to the waterway and if they need to be improved, these individuals can offer insight into how to improve them. Other agencies and

organizations have done work, like the agricultural 5-year forecasts. The procedures for finding and integrating other data need to be improved. COE needs to seek quality sources from outside the agency.