Using the Non-Archive Method to Run a Flood Event Simulation:

Preparation:

Consider the following information before beginning the simulation:

1. Ensure the latest version of the SA is installed locally. This description refers to the CHPS main application directory containing all of the SA information:

   CHPS_sa_Home

2. Ensure the latest region configuration (/Config directory) of the RFC your SA is configured as is loaded. If unsure, use the Configuration Management Tool to download the latest configuration.

3. Ensure the data and data sets for the event simulation are stored in an event folder. This description refers to the event folder:

   TrainingData

   Copy this directory into the main CHPS application directory.

   cp –rf /TrainingData /awips/chps_share/sa/fews/CHPS_sa_Home

4. Delete the contents of the local data store. This ensures the simulation starts from an empty database. Delete all files and subdirectories in the directory:

   /CHPS_sa_home/xxrfc_sa/localDataStore

STEP 1: Creating the Warm States

In this step, run the SA to the start date of the event. Observed data from several weeks prior to the event propagates the model utilizing the UpdateStates workflow to the start of the event. This sequence uses the *preparation* subdirectory within the *TrainingData* directory.

Note: This method cannot replicate an event. The warm states created for this method include observational data, but not antecedent conditions.

1. From the command line, navigate to the CHPS main application directory *CHPS_sa_Home.* At the command line, type:

   cd /awips/chps_share/sa/fews/CHPS_sa_Home

2. Copy all observed data sets in the preparation folder of TrainingData into the CHPS Import directory. At the command line, type:

   cp –rf /TrainingData/preparation/ /xxrfc_sa/Import*

3. Initialize the CHPS SA. At the command line, type:

   ./bin/fews.sh xxrfc_sa &

On the CHPS SA GUI

Step	Action	Notes
1	**Set** the system time.	The system time should be set to the forecasting period before day one (for example, 12Z).
2	**Open** the Manual Forecast Display.	Consider undocking and resizing the Manual Forecast Display window.
3	From the dialog box, **select** and **run** the Import Workflow.	This ingests the observational data into CHPS. View the workflow progress in the log panel.
4	Click the **Data Viewer tab**.	Verify the data was ingested.
5	Using the Manual Forecast Display, **select** and **run** the Preprocess (RRS) workflow as a cold state run.	Set the cold state time to the beginning date of the observational data in the preparation folder. View the workflow progress in the log panel.
6	Click the **Data Viewer tab.**	Verify the data was ingested.
7	Using the Manual Forecast Display, **select** and **run** the Forecast Group UpdateStates workflow (i.e. ForecastGroup_UpdateStates) as a cold state run.	Set the cold state time to the beginning date of the observational data in the preparation folder. View the workflow progress in the log panel.
8	**Repeat** Step 7 for any other forecast groups.	

STEP 2 Event Day 1:

This step adds observed data from Day 1 of the event to the SA. This sequence of steps will utilize the *Day_1* subdirectory within the *TrainingData* directory.

1. From the command line, copy all observed data sets in the preparation folder of TrainingData into the CHPS Import directory. At the command line, type:

   cp –rf /TrainingData/Day_1/* /xxrfc_sa/Import

On the CHPS SA GUI

Step	Action	Notes
1	**Set** the system time.	Set the system time to the forecasting period on day one (for example, 12Z).
2	**Re-Open** the Manual Forecast Display window.	
3	From the dialog box, **select** and **run** the Import Workflow.	This ingests the observational data into CHPS. View the workflow progress in the log panel.
4	Click the **Data Viewer tab**.	Verify the data was ingested.
5	Using the Manual Forecast Display window, **select** and **run** the Preprocess (RRS) workflow.	This workflow runs as a normal warm state run. View the workflow progress in the log panel.
6	Click the **Data Viewer tab.**	Verify the data was ingested.
7	**Enter** the IFD in forecasting mode and **select** a relevant forecast group.	Select one of the forecast groups with warm states (created for part of the event).
8	**Select** the newly created warm states in the Run Option Panel beneath the IFD.	

Begin the simulation with the following options:

- Make forecasts at each segment within the relevant forecast groups.
- Apply any modifications to the forecast.
- Review the simulations and time series displays.
- Add forecaster notes.
- Use the forecaster help panel.

After making forecasts for each of the segments in the relevant forecast groups, submit the forecast. Before moving on to the next day in the event (day 2), run the update states workflow for the relevant forecast group workflows.

9	**Open** the Manual Forecast Display window.	
10	From the dialog box, **select** and **run** the forecast group Update States workflow (i.e. *ForecastGroup_UpdateStates*).	This updates the model states with the data from the newly created forecast.

STEP 3 Event Day 2 through the end of the event:

In this step, follow the same procedure as is listed above (i.e. STEP2 Event Day 1:). Make sure to:

- Copy observational data for the next day of the event into the CHPS Import folder.
- Change the system time.
- Import the next day's observational data using the Import workflow and Preprocess (RRS) workflow.
- Use the run options panel to select latest warm states for the relevant forecast groups.
- Make forecasts.

Use this procedure through the final day of the event.