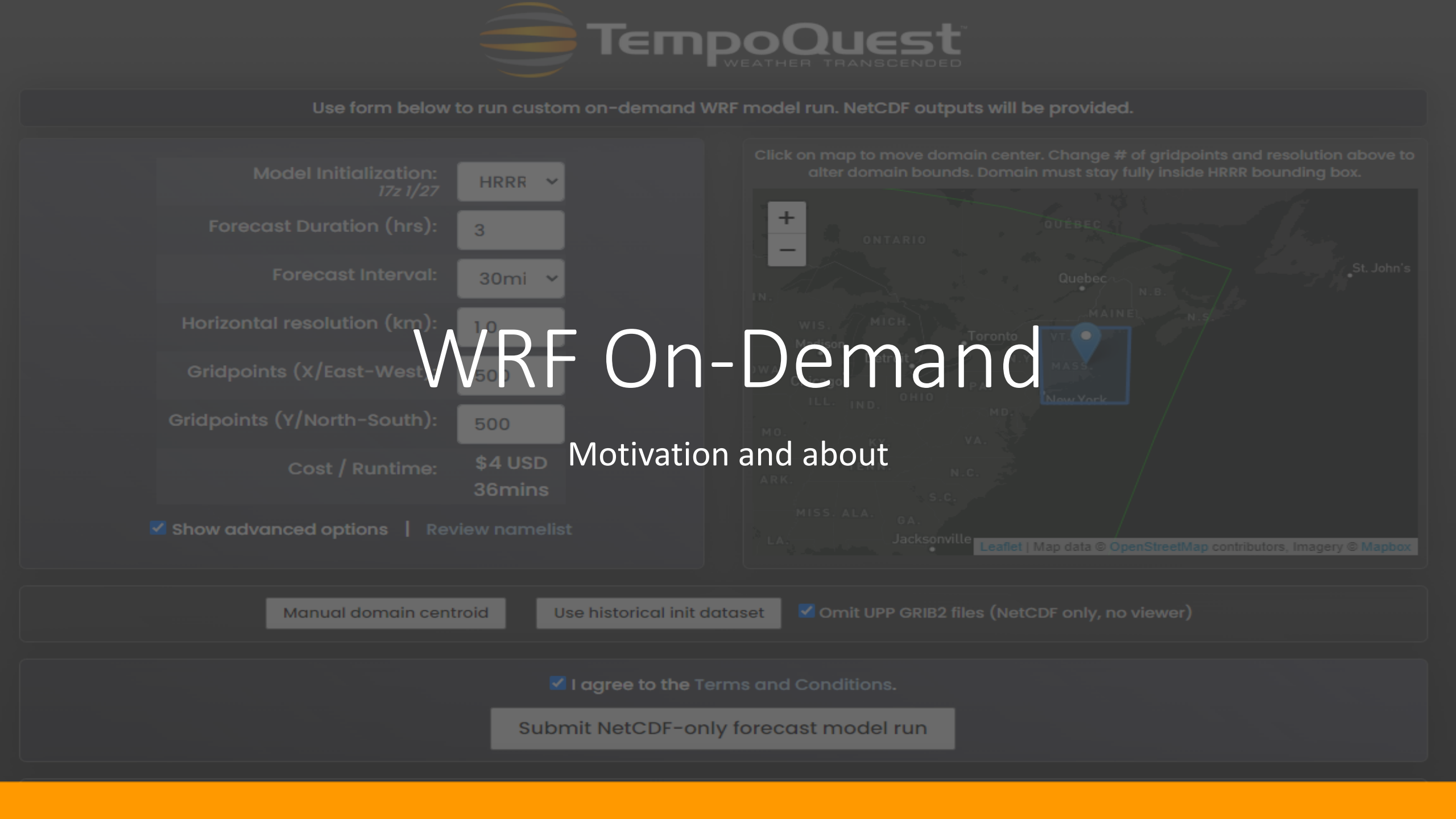

WRF On-Demand

Motivation and about

WRF On-Demand

Why?

- Access to HPC systems
- Cluster management and software installation
- HPC-specific skillsets
- WRF has a steep learning curve
  - Infinite number of ways to break it
  - Flexibility can be overwhelming when starting

WRF On-Demand

- Web-based interface for setting up and running AceCAST simulations
  - Minimal set of options to simplify simulation parameter selection for the user
  - Interactive domain selection
  - Protects the user from doing things that would break WRF
  - Automatically determines GPU requirements
- Uses cloud-based compute and storage
  - No need for your own HPC!
  - Automated HPC cluster startup/shutdown
- AceCAST Modeling Framework (AMF)
  - Initialization dataset download
  - WPS preprocessing
  - AceCAST
  - UPP post-processing (optional)
  - Uploads output data to persistent cloud storage
- Visualization/Analysis
  - In-browser visualization tools
  - Direct access to output files for custom visualization/analysis