

Interagency Information Briefing



TO: Colorado State Local Agencies, Rocky Mountain Area State & Federal Agencies & Interested Agency Personnel

RE: 2019 Water Enhancer Use and Evaluation Study

DATE: May 6, 2019

Water-Enhancer Study on Wildfires:

The Center of Excellence for Advanced Technology Aerial Firefighting (CoE) with the support of DFPC Aviation Unit and BLM Colorado will continue with their Water Enhancer study in 2019. The study will be led by the CoE and will build on data collected from water enhancer testing conducted in 2017 and 2018. The study may continue beyond 2019 with different products.

APPROACH:

These evaluations are designed to test the effectiveness of different suppressants in 2019: Gel Tech Firelce 561 (Clear and Blue Colorant) and Bio Central BlazeTamer 380 (Clear-no colorant) both of which are currently approved by the U.S. Forest Service (USFS) and listed on the current Wildland Fire Chemicals Qualified Product List (QPL).

Testing will be undertaken on fires of all jurisdictions and/or ownership, including State and private lands, U.S. Bureau of Land Management (BLM), National Park Service (NPS), Bureau of Indian Affairs (BIA), US Fish & Wildlife Service (FWS) and US Forest Service (USFS) lands. Mixing will be at approved (QPL) water to gel mixing ratios for each product, on all drops. DFPC Contracted seats ordered for county, state and private lands may be loaded with water enhancers that are mixed outside of the recommended ratios prescribed within the QPL for additional evaluation data.

SEAT bases that will have water enhancers: Firelce 561 will be at the Rifle SEAT Base and BlazeTamer 380 will be at the Northern Colorado DFPC SEAT base. It is possible that we may have some other products brought in as fire activity picks up in Colorado.

At this time there are no plans to have Thermo-Gel 200L at the Craig, Colorado SEAT base.

Options to move these products to other locations as fires activity dictates will be considered.

For operational planning purposes, SEAT's will be loaded with the enhancers specified above on the first load. Any additional loads will be at the discretion of the Incident Commander to utilize retardant, water enhancer or water. SEAT managers will provide data on mixing ratios, mixing times, adjustments to achieve desired viscosity and efficiency of mixing equipment, which are all critical to provide a proper viscosity for the best fuel adhesion.

Drop Data Collection

Suppression drops are best assessed on the ground. This is critical to the success of the study and allows for the best times and locations to accomplish detailed observations and monitoring onsite. With the help from firefighters on the ground, we want to collect data on each drop for accuracy, coverage levels, and adhesion to the fuels as well as penetration through the canopy and the effectiveness of the product used on achieving a reduction in fire intensity and fire suppression objectives. Firefighters should complete a drop evaluation form for each drop and record their observations. **For 2019 the CoE plans to have 2 dedicated firefighters on our staff that will travel to incidents and join firefighters on the ground to perform ground data collection as well.**

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We will continue to request that Aerial Supervisors and SEAT pilots collect drop data. Firefighters, Air Tactical Group Supervisor(s) and SEAT pilot(s) will be responsible for completing drop evaluation forms on tactics used, drop accuracy, holding times, coverage levels used, fuel types, visibility of the product from the air, the product used, and effects on fire behavior. This will be completed as soon as possible after observing the drops. When possible, the study will utilize the Colorado Multi-Mission Aircraft as supplemental data collection platforms to record the drops using the sensors and IR/EO cameras.

To provide your observations for **Data Collection**, Safety Data Sheets (MSDS), Qualified Product List (QPL), and Water Enhancer Manufacturer Product Information follow the following link:

<https://www.colorado.gov/pacific/dfpc/aerial-application-water-enhancer-study>

Or scan the following QR Code:



The intent is to collect as much data as possible regarding the effectiveness of these water enhancers from their use on wildfires in 2019. Data collection from the field is vitally important and will inform our study with direct observations from firefighters on the effectiveness of these products. Our goal is to provide firefighters with the best suppression option(s) possible for today and in the future. Once our study is completed we will share the results with our inter-agency partners and cooperators.

For additional information or operational questions, please contact DFPC Aviation Unit Chief Vince Welbaum vince.welbaum@state.co.us (720) 413-2537 or BLM Colorado State Aviation Manager Clark Hammond c1hammon@blm.gov (720) 305-8841. For more information about the study, please contact Dave Toelle Center of Excellence Aerial Firefighting Specialist dave.toelle@state.co.us (970) 989-3475.