



NATIONAL WILDFIRE COORDINATING GROUP

NWCG Memorandum 23-006

August 15, 2023

TO: NWCG Executive Board Members

FROM: Shane McDonald, Chair, NWCG Executive Board

SHANE
MCDONALD

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SHANE MCDONALD
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SUBJECT: Approval to Field Test the Change to Safety Zone Calculations

Purpose: This purpose of this memorandum is to communicate the Executive Board's approval for the field testing of the proposed change to safety zone calculations by fireline personnel and incident management teams (IMTs).

Please distribute this information through your agency channels.

Issue/Action: The Rocky Mountain Research Station staff along with the NWCG Incident and Position Standards (IPSC), Risk Management (RMC), and Fire Environment (FENC) committees, are requesting feedback on the proposed new guideline for Safe Separation Distance (SSD) between the firefighter and the flames for the associated safety zone size through field testing.

The Executive Board approves the field testing of the proposed changes to safety zone calculations by fireline personnel and IMTs in coordination with the NWCG committees through December 31, 2024. Fireline personnel and IMT feedback from the field test will better inform any potential updates to safety zone guidelines.

The attachments (for both fireline personnel and IMTs) outline the rationale, the formula for calculating the SSD, a table to determine the delta (Δ) value, an example calculation, and how to provide feedback during the field test. In addition, the IMT field test attachment includes information on the Safe Separation Distance Evaluator (SSDE), a new online tool that allows users to draw a potential safety zone polygon and estimate the SSD based on vegetation height, terrain slope, wind speed, and burning conditions; and considerations for IMTs during a field test.

Additional resources and information is available at: <https://www.nwcg.gov/committees/incident-and-position-standards-committee>, under the "Useful Resources" dropdown.

Background and Coordination: To better serve firefighters, the proposed new safety zone calculation accounts for slope, wind speed, burning conditions, and both convection and radiation from flames. Heat transfer by convection is a major force, particularly in the presence of steep slopes and high winds. When a safety zone is upslope or downwind of the fire, the safety zone will need to increase in size. The distance from the center of the safety zone to the nearest fuels is the Safe Separation Distance.

Contact: For additional information or clarification please contact Shane McDonald, shane_mcdonald@fws.gov, or Sarah Lee, sjlee@blm.gov.

NWCG standards are interagency by design; however, the decision to adopt and utilize them is made independently by the individual member agencies and communicated through their respective directives systems.

Attachments:

Change to Safety Zone Calculation Field Test_Fireline Personnel

Change to Safety Zone Calculation Field Test_IMTs

Distribution:

Jeff Arnberger, Chair, NMAC

NWCG Committee Chairs

NWCG Staff