

## Mapping the Russian Invasion of Ukraine

The Institute for the Study of War and the Critical Threats Project methodology for mapping conventional maneuver war relies on standard US military doctrinal definitions of tactical mission tasks as well as centuries-old conventions for displaying conventional military operations on terrain. The approach to mapping conventional maneuver war is very different from that used to depict insurgency, for reasons we will consider presently. The difference can make our maps of the current war in Ukraine appear jarring to those familiar with our approach and others' to mapping insurgencies over the past two decades.

We begin with the doctrinal definition of "control:" "a tactical mission task that requires the commander to maintain physical influence over a specified area to prevent its use by an enemy or to create conditions necessary for successful friendly operations. (FM 3-90-1)" We also use the concepts "forward line of own troops (FLOT)," "line of contact," and "forward edge of the battle area," which all identify in slightly different ways the line separating friendly from enemy forces. The FLOT "is a line which indicates the most forward positions of friendly forces in any kind of military operation at a specific time... It does not include small, long-range reconnaissance assets and similar stay-behind forces." (FM 3-90-1). ISW/CTP **does not track or report on the activities or locations of friendly forces other than by friendly governments' own announcements by policy.** We therefore depict the FLOT of Russian forces according to this definition and standard as well as our sources permit.

We follow the long-established custom in military cartography of assessing a roughly continuous FLOT for mechanized forces advancing along two relatively close nearly parallel roads, for example, rather than restricting our depiction of control to the roads themselves or to precise locations of known forces unless we can identify defending forces still holding ground between the attackers. Our reasoning follows the definition of control in maneuver war, as mechanized forces can generally "maintain physical influence over a specified area to prevent its use by an enemy" at some distance from the forces themselves relying on the ranges of tank main guns and the longer-range fire systems that normally accompany them. Two forces advancing in parallel but separated by a distance that does not generally exceed the ranges of their indirect fire systems can likely control the terrain between them if a defender is not actively contesting it. This long-established practice can be seen in maps of World War II, for example, which normally depict much smoother and more continuous front lines than would be shown if cartographers confined themselves only to marking areas where specific forces were known to be located at a given time.

We offer this detailed description of our methodology because we recognize that our maps of this conflict appear unusual compared with our maps of the counter-insurgency campaigns in Iraq, Afghanistan, Syria, and elsewhere. The key point is that control in the context of mechanized conventional war is very different from control in the context of insurgency or counter-insurgency. When mapping insurgencies, we rely on definitions of control and other terms that include assessments of the state of competing efforts to establish governance, since government legitimacy is at the heart of any counterinsurgency.

The United States and international community recognize only one legitimate government in Ukraine, that seated in Kyiv according to the Ukrainian Constitution and currently headed by President Volodymyr Zelensky. The Russian invasion is an attempt to replace that government by conventional military force. The ISW and CTP depictions of areas of Russian control **do not in any way suggest Russian governance of those areas or the loss of the legitimacy of the internationally-recognized Ukrainian government among populations in those areas**, as control maps of an insurgency would imply. They simply depict our best assessments of the forward line of Russian troops as of the data-cutoff time for each map.

ISW and CTP strive for accuracy. Responsible analysts and scholars who wish to share evidence for our map that our analysts can verify, attribute, and publish are invited to reach out via direct message or email. Our analysts welcome verifiable feedback. If we cannot verify it, unfortunately, we cannot use it.

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