The Aerial Delivery of Humanitarian Aid in Syria: Options and Constraints

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Brief Analysis

While airlift operations may provide temporary relief for a number of besieged and hard-to-reach communities, urgently enhancing the military capabilities of moderate opposition groups is ultimately the only way to effectively counter the Assad regime's use of food as a weapon.

The Assad regime's use of food as a weapon has been a central feature of the Syrian civil war. Regime forces have used "surrender or starve" tactics to great effect. Humanitarian supply efforts have repeatedly been obstructed by regime forces, as well as by the Islamic State (IS), some rebel groups, and criminal elements. According to the United Nations, 408,200 persons in besieged or hard-to-reach communities are now in dire need.

Thus, at the conclusion of a May 17 meeting, the International Syria Support Group (ISSG) called on the UN World Food Programme (WFP) to establish "air bridges and air drops for all areas in need" if UN ground convoys "[continue to be] denied humanitarian access to...designated besieged areas" after June 1.

The hope, apparently, is that the threat of a humanitarian airlift will cause the Syrian government to allow more ground convoys through. Yet the past does not provide grounds for optimism. That being the case, what might a humanitarian airlift in Syria accomplish and what challenges might it face?

Yet Another Problem From Hell

The ISSG's May 17 statement identified seven neighborhoods on the eastern and southwestern outskirts of Damascus (total population 250,000-300,000) that are besieged by Syrian government forces and in need of immediate relief: Arbin, Darraya, Douma, East Harasta, Moadamiya, Zabdin, and Zamalka. (Zabdin has since fallen to government forces, and East Harasta and Douma were finally reached by aid convoys in the past week.) And it

identified nine other communities in need, seven besieged by government forces: al-Fua, Kefraya, Kafr Batna, Ein Tarma, Hammura, Jisrein, Madaya, Zabadani, and Yarmouk. The ISSG is now considering humanitarian airlift operations for these areas. Even if additional land corridors open up, airlift operations may be necessary to augment ground convoys in some areas and may be the only option in others. But if the Syrian government is unwilling to allow convoys through, it is unlikely to approve airlift operations -- and the WFP is unlikely to attempt the latter without regime assent.

Aerial Delivery of Humanitarian Aid

Generally, the most reliable and cost-effective way to deliver humanitarian aid is by ground. But in wartime, ground corridors may be blocked or too dangerous to use. In such circumstances, ground resupply efforts can be supplemented or replaced by airlift operations, and the delivery of supplies via "air bridge" or airdrop.

Air bridges. Entailing aid delivery via airports, highway landing strips, or unimproved airfields, an air bridge can augment aid brought in overland and help mitigate the risk faced by long ground convoys. In some cases, air bridges may require heavy ground security to protect airfields, personnel, and supplies, and to escort convoys distributing these supplies to local communities.

During the 1948-1949 Berlin Airlift, U.S. and British aircraft delivered approximately 2,325,000 tons of cargo for the two million residents of West Berlin, who were blockaded by Soviet forces. And during the war in Bosnia (1992-1995), a UN peacekeeping force (UNPROFOR) was tasked to secure Sarajevo airport, establish safe corridors, and guard food convoys delivering aid to residents of that besieged city and, later, beyond.

Airdrops. The delivery of aid by parachute is the least favored option. It often entails significant wastage when cargo containers are damaged on impact, are pilfered, looted, or diverted, or fall into the wrong hands. Moreover, the intended beneficiaries often put themselves at risk by crowding drop zones or trying to recover supplies from difficult or dangerous terrain (e.g., areas containing unexploded ordnance). Finally, depending on the aircraft type, the quantity of aid delivered per sortie via airdrop is usually less -- sometimes significantly less -- than can be delivered per sortie via air bridge, due to cargo packing, rigging, and loading constraints. But if circumstances are sufficiently dire, the benefits will outweigh the risks.

The United States has tremendous experience conducting military and humanitarian airdrops. In Afghanistan (2001-present), it has conducted tens of thousands of airdrops to sustain forward-deployed U.S. forces, relying on robust communications, experienced planners, cargo packers and riggers, GPS-guided delivery systems, and highly capable aircraft like the C-17 Globemaster III to facilitate precision resupply in difficult terrain. These operations are enabled by armed ground elements that can communicate with and guide transport aircraft to ensure the accurate delivery and successful recovery of supplies. In most cases, however, resupplied forces will consist of no more than a few dozen soldiers.

GPS-guided systems like the expensive and scarce Joint Precision Aerial Delivery System (JPADS) are often used when precision, high-altitude drops or standoff is required. However, because the United States reuses JPADS, it is not a suitable option when the guidance unit cannot be recovered. Moreover, because JPADS was acquired to resupply military units generally consisting of dozens of personnel, rather than civilian concentrations numbering in the thousands, most models can deliver only relatively small payloads.

The United States and international community have also conducted humanitarian airdrops on other occasions, including the initial phase of the mission to aid Kurdish refugees in northern Iraq in 1991; in response to a man-made famine in Sudan in 1998, constituting the largest WFP food airdrop in its history; and after Haiti's devastating 2010 earthquake.

More recently, in Syria and Iraq, the United States and Britain in 2014 airdropped aid to thousands of Yazidi Iraqis

fleeing IS forces on Sinjar Mountain. A few months later, the United States airdropped supplies to isolated Iraqi military forces outside the northern Iraqi town of Bayji. In 2014-2015, America dropped tons of weapons and ammunition to Kurdish and other antiregime forces in northern Syria, though at least once, IS fighters recovered military equipment from misdirected pallets. And this year, the WFP as well as the Syrian and Russian air forces have conducted airdrops over the IS-besieged town of Deir al-Zour in eastern Syria. Residents of Deir al-Zour complain, however, that food drops are collected and hoarded by the Syrian Arab Red Crescent and the Syrian Arab Army, and provided to regime loyalists or sold to others at extortionate prices.

Syrian Airlift Options

The use of air bridges and airdrops could play out as follows in the Syrian context:

Air bridges. Twelve of the sixteen aforementioned besieged or hard-to-reach communities are in the Damascus area and located adjacent to, or relatively near, at least five major operational air bases: Mezze, Damascus International Airport (used by Iran to airlift troops and arms into Syria), Marj Ruhayyil, Marj al-Sultan helicopter base, and Dumair. All five could conceivably support air bridge operations, assuming the assent of Syrian government and opposition forces. (Marj al-Sultan and Dumair are in contested areas -- the latter in an area threatened by IS, which has not cooperated with efforts elsewhere to deliver humanitarian aid.) There may also be highway landing strips in this area. But the aid will have to be distributed by convoys, and if the regime continues to obstruct humanitarian convoys -- as it has for years now -- it won't matter if the aid entered Syria by land or air bridge.

Airdrops. The twelve Damascus-area communities in need are densely packed suburban neighborhoods or towns. Potential drop zones include small parks, vacant lots, or fields; the use of precision-guided delivery systems, such as JPADS, would be essential for success. However, without the ability to recover and reuse the guidance units, this course of action would be unsustainable, given that not enough JPADS-type systems are available to support a major, long-duration humanitarian operation. Conversely, unguided pallets would likely damage elements of the surviving urban infrastructure (e.g., power lines), many would themselves be damaged on impact by exposed rebar and rubble, some might produce collateral damage by landing on pedestrians or collapsing residential structures, and a certain percentage would be recovered by regime forces -- explaining why airdrops in open areas adjacent to some of these neighborhoods would not be feasible. Finally, these neighborhoods are located in the heart of Syria's national air-defense system; Syrian government acquiescence would be necessary to ensure the safety of relief operations.

Scale and scope of the effort. According to published figures reflecting planning assumptions for humanitarian operations, 550 tons of food supplies could provide partial rations for 100,000 people for thirty days. This would equate to about 1,500 tons of food per month for the 250,000-300,000 residents of the six neediest still-besieged communities around Damascus. The Russian IL-76 -- used by the WFP and the Syrian and Russian air forces -- can carry 40-50 tons of cargo. Total capacity depends on the aircraft model, cargo type, and mode of delivery. That would equate to 10-15 IL-76 sorties per month. (By comparison, U.S. C-130 and C-17 military transport aircraft, also operated by several regional air forces, can carry 18-20 tons and 82-85 tons of cargo, respectively.) If more sorties were to be flown, more people in need could be served.

Conclusion

The airfields and roadways around Damascus are used routinely by the Assad regime to bring in troops, equipment, and military supplies from Iran and elsewhere; there is no reason they cannot also be used to bring in humanitarian aid. But an air bridge will not obviate the need for ground convoys to deliver the aid, which the regime has often obstructed as part of its "surrender of starve" tactics, or to incentivize truces in strategic areas. As for airdrops, they are a highly problematic and inefficient means of delivering aid to populations in built-up areas, and

are ultimately also dependent on Syrian government assent.

To date, ground convoys have reached but a fraction of those in need in besieged and hard-to-reach areas -- according to the United Nations, 12 percent in January, 25 percent in February, 21 percent in March, 42 percent in April, and only 1 percent in the first week or so of May. Some besieged areas have not received food aid in years. Moreover, according to the WFP, 4 million people in Syria receive monthly food rations, out of the 8.7 million in need of food assistance. The besieged communities are but the tip of a massive iceberg.

If Damascus does not permit food convoys to access besieged and hard-to-reach communities, air bridges will make no difference. To this end, Washington and the international community should exert maximum pressure on Moscow to make good on its Geneva and Vienna commitments regarding humanitarian access, and press the Assad regime to let food convoys through. If Moscow cannot influence Assad on this point, it will not likely be able to influence Assad regarding a political transition in Syria.

If ground convoys continue to be obstructed, and a political solution to the Syria conflict proves unattainable in the near term, the United States should much more energetically and urgently pursue the only course of action that promises a potential long-term solution to the regime's "surrender or starve" tactics: providing moderate Syrian opposition groups with the means to break the sieges imposed by regime forces on their communities.

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