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CHINA AEROSPACE STUDIES INSTITUTE

Aerial Refueling Added to Flight Academies' Transition Training Curriculum

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Two J-10S fighters of the Shijiazhuang Flight Academy's transition training unit approach a YU-20 tanker for refueling. Source: http://www.xinhuanet.com/20250530/efa9d7cfe2ac4f2d883bbecf3a821ee8/c.html

In August 2025 the television news program *National Defense and Military Affairs at Noon,* which is produced by the Chinese People's Liberation Army (PLA), broadcast a segment showing flight instructors at the PLA Air Force's (PLAAF) Xi'an Flight Academy undergoing training in aerial refueling.[1] This was the first time that such training has been observed at the Xi'an Flight Academy, making Xi'an the second flight academy to have conducted such training. In May 2025 the PLA's official newspaper, *Liberation Army News*, reported that flight instructors at the Shijiazhuang Flight Academy had "recently" conducted the first aerial refueling training at an educational institution.[2] These reports indicate that aerial refueling will soon be added to the curriculum of the transition and combat training programs at two of the PLAAF's flight academies, which indicates that aerial refueling has become a regular feature in operational units' training.

Transition and combat training itself is a recent addition to the PLAAF's flight academies. The PLAAF's three flight academies are where prospective pilots undergo intermediate and advanced flight training. After graduating from a flight academy, most new fighter pilots are assigned to an operational unit where they undergo another year of training to transition to a combat aircraft. However, within the past five years all three academies have established units to transition new pilots to fourth-generation[i] fighters, relieving operational units of the burden of training a small percentage of new pilots.[3]

While the Shijiazhuang and Xi'an Flight Academies are likely to add aerial refueling to their curricula, aerial refueling is unlikely to be added to the curriculum at the PLAAF's third flight

[i] What the USAF defines as a fourth-generation fighter is referred to as a third-generation fighter in the PLAAF.

academy in Harbin due to differences in aircraft. The Shijiazhuang and Xi'an Flight Academies have transition training units operating the J-10 fighter, which has an aerial refueling probe, but the Harbin Flight Academy's only known transition training unit operates the J-11 fighter, which does not have an aerial refueling probe.[4] Consequently, aerial refueling is unlikely to be added to the transition training curriculum at the Harbin Flight Academy until a new transition training unit operating a different type of aircraft is established there.

Although the PLAAF has had an aerial refueling capability for three decades, aerial refueling has only recently become a regular feature of its training. This was likely because the PLAAF lacked a suitable tanker. The PLAAF's first tanker was the HU-6, a modified version of the H-6 bomber. The HU-6 entered service in the early to mid-1990s, but it was not an ideal tanker.[5] It was only capable of carrying 37 tons of fuel, of which it could transfer 18.5 tons, and its refueling hoses were said to be so short that the receiving aircraft were subjected to turbulence from the HU-6's jet wash during refueling.[6] China later imported three Il-78 tankers from Russia, but by 2021 the PLAAF was already employing the YU-20, the tanker variant of the Y-20 cargo aircraft.[7] Reportedly, the YU-20 can carry more than 100 tons of fuel, of which it can transfer more than 60 tons.[8]

Since the introduction of the YU-20, aerial refueling has become a regular feature in news reports about the PLAAF's training. By the end of 2023, the PLA reported that aerial refueling had become just another part of pilots' training and showcased pilots who were required to refuel in the air more than once during a single sortie.[9] Although that case may have been extraordinary at the time, it still indicated the direction in which the PLAAF's training was evolving. Pilots, including new pilots who are undergoing transition and combat training in an operational unit, can be seen conducting aerial refueling as a part of their training for other missions.[10]

Although the addition of aerial refueling to the curriculum at the PLAAF's flight academies will not radically change training there, it is still significant. It represents yet another step in the gradual process of fully shifting the burden of training new pilots from operational units to educational institutions. This, in turn, makes the training at these institutions more practical and realistic. But more important, the addition indirectly indicates that aerial refueling is a standard part of training in operational units, and it suggests that the PLAAF possesses sufficient numbers of tankers and aircrews to satisfy the training needs of the flight academies and operational units.

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Endnotes

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