“Flying Twice” No More:
Assessing the Aerospace Component of the PLA Military Parade

Marcus Clay, Ph.D.

When the Chinese Communist Party (CCP) was planning for the military parade at the founding ceremony of the People's Republic of China (PRC) in October 1949, China had 17 aircraft in total. China’s late premier, Zhou Enlai, reportedly had to order the military to “fly them twice” to make the show more credible.[1] On 1 October 2019, more than 100,000 military and civilian participants gathered at the heart of Beijing, participating in a military parade and a mass pageantry to commemorate the 70th anniversary of the founding of the PRC. This carefully-choreographed event, designed both for domestic and foreign consumption, showcased more than 160 aircraft and 580 pieces of equipment.[2] It also featured 59 formations and a military band that played more than 50 patriotic songs to accompany the grand parade. The chief commander (总指挥) of the grand military parade was General Yi Xiaoguang[3] (乙晓光), Commander of the People’s Liberation Army (PLA) Central Theater Command (formerly the Beijing Military Region), who assumed his billet in October 2017. It is worth noting that Commander Yi, dubbed the “star general” of the PLA, is the first ever PLA Air Force (PLAAF) general officer who has assumed the role of Theater Command or former Military Region commander.[i]

General Yi Xiaoguang, Credit: CCTV parade screenshot

The days of “fly them twice” have clearly long gone, and the political message of China’s “new era” sent to the world through an event of this scale is hard to miss. In Chairman of the CCP

[i] All of the previous chief commanders of major military parades that took place on the Tian’anmen Square were from the PLA Army. For instance, in 2017, General Han Weiguo (韩卫国), then commander of the Central Theater Command, served as the commander of the military parade that marked the PLA's 90th birthday in Zhurihe. In September 2015, General Song Puxuan (宋普选), then commander of the Beijing Military Region, was general commander of the military parade that marked the 70th anniversary of the victory of the Chinese People's War of Resistance against Japanese Aggression and the World Anti-Fascist War in Beijing.

Central Military Commission (CMC) Xi Jinping's 8-minute-long speech, delivered at almost exactly the same spot on the Tian'anmen rostrum, where Mao Zedong famously declared the founding of the PRC in 1949, he stated:

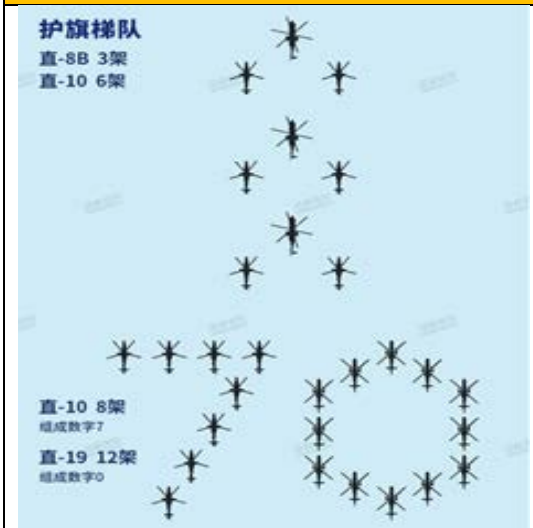
> *"Today, a socialist China stood proudly in the east of the world. There is no force that can shake the foundation of this great nation. No force can stop the Chinese people and the Chinese nation forging ahead."*[4]

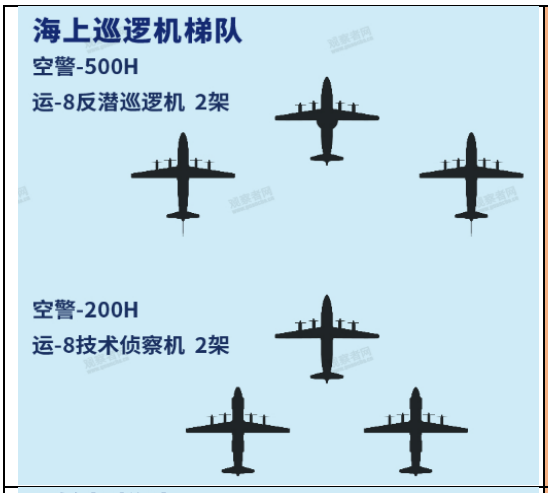
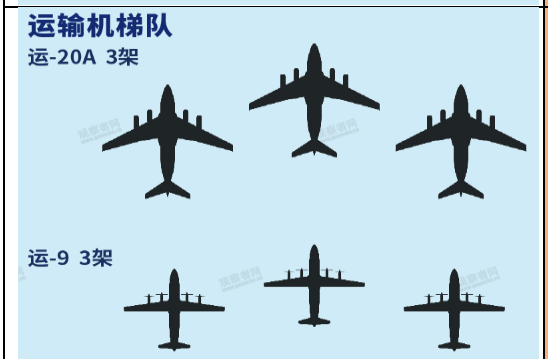
The "force (力量)" that Chairman Xi was specifically referring to may be interpreted in different ways. It may likely encompass both internal social and political factors and external security threat. Yet, there is no doubt that the Chinese military modernization, as a source of the Chinese national pride, will continue to forge ahead. To be sure, the military parade is all about the display of hardware and less about "software," such as the quality of the military personnel and the efficacy of the military's command and control systems, which may continue to be the "Achilles Heel" of the Chinese military undergoing massive reforms. Moreover, the capabilities of most, if not all, of the weapon platforms on display at the parade have already been speculated upon, analyzed or studied for months, or even years within the western defense community. Nevertheless, there is a sense of confidence conveyed in Xi's speech that should not be overlooked. More importantly, the political messages embodied in the parade seem to suggest that the pace of the PRC's reorganization and military modernization of weapons will continue to accelerate and remain a priority for enhancing China's comprehensive national power in the next decade, despite a possible economic slowdown against the backdrop of a less favorable international environment for development.

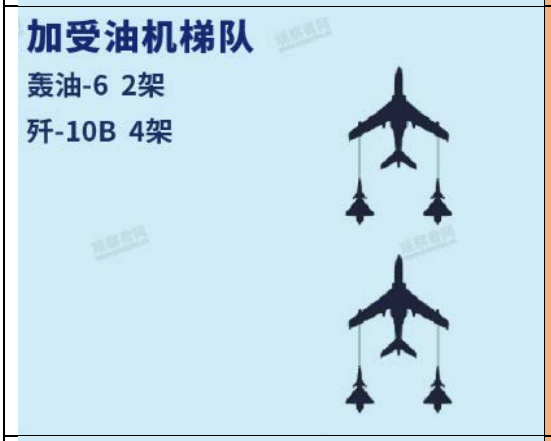
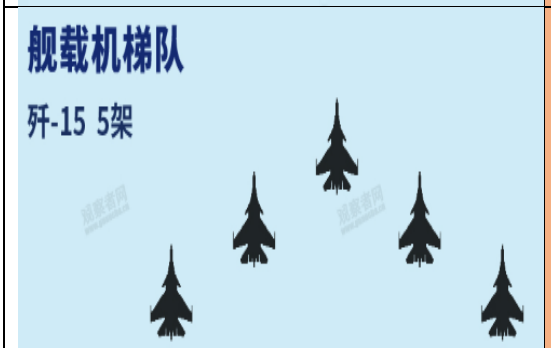
Everything That Flies

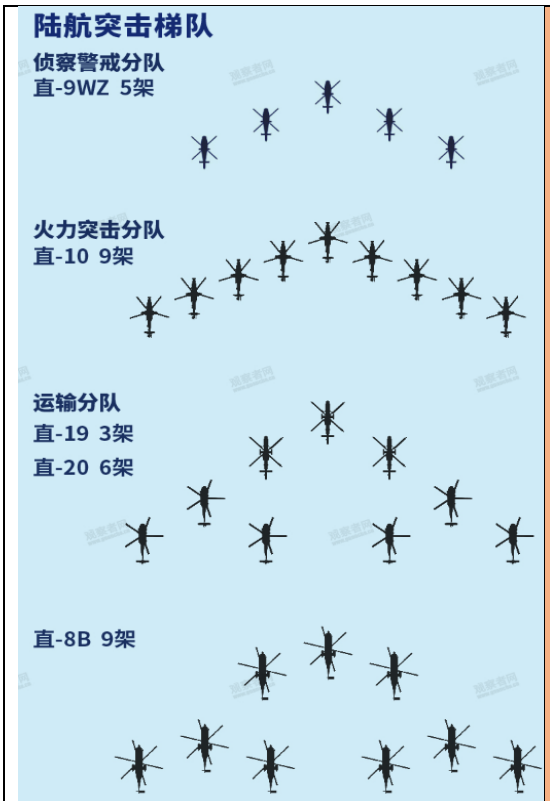
The massive "show of force" on Beijing's Chang'an Street, including the official debut of the Dongfeng-41 solid-fueled road-mobile intercontinental ballistic missile (ICBM) and possibly the world's first hypersonic glide vehicle (HGV), Dongfeng-17, has undoubtedly garnered world-wide attention. According to official Chinese accounts, all of the equipment on display at the parade is "domestically-manufactured,"[5] and has already been deployed for service in the PLA as "key combat equipment (国产现役主战装备)." The parade not only revealed the composition of the PLA's "joint operations equipment system (联合作战装备体系), but also demonstrated that the PLA has generally achieved a higher-degree of informatization (信息化程度) in its hardware, and it has acquired "stronger command and control and precision strike capabilities, as well as better battlefield adaptability and higher combat effectiveness."

Below is a complete list of "everything that flies" at the Tian'anmen military parade. It includes aircraft (including the PLA Army's gyrocopter), missiles, air and missile defense systems, information warfare components, and unmanned aircraft systems (UAS).

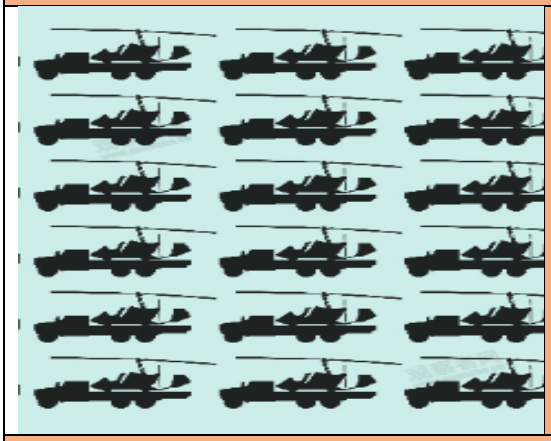
Echelons/Formation		Aircraft	Number
	**Flag-carrying Echelon (护旗梯队)**	Z-3B Helicopter (直-3B)	3
		Z-10 Helicopter (直-10)	14
		Z-19 Helicopter (直-19)	12
	**Lead Aircraft Echelon (领队机梯队)**	KJ-2000 AEW&C (空警-2000), carrying PLAAF Commander, General Ding Laihang	1
		J-10 Fighter (歼-10), "Bayi demonstration team (including two female pilots[6])"	8
	**Early Warning Command Aircraft (预警指挥机梯队)**	KJ-500 AEW&C (空警-500)	1
		J-11B Fighter (歼-11B)	4
		KJ-200 AEW&C (空警-200)	1
		J-11B Fighter (歼-11B)	4
		Y-8 Communications and Command Aircraft (运-8 通讯指挥机)	1
		J-11B Fighter (歼-11B)	4

	**Maritime Patrol Aircraft Echelon (海上巡逻机梯队)**	KJ-500H AEW&C (空警-500H)	1
		Y-8 Anti-submarine patrol aircraft (运-8 反潜巡逻机)	2
		KJ-200H AEW&C (空警-200H)	1
		Y-8 Technical Reconnaissance Aircraft (运-8 技术侦察机)	2
	**Transport Echelon (运输机梯队)**	Y-20A (运-20A)	3
		Y-9 (运-9)	3
	**Support Aircraft Echelon (支援保障机梯队)**	Y-9 Communications Countermeasures Aircraft (运-9 通信对抗机)	1
		Y-9 Psychological Warfare Aircraft (运-9 心理战机)	1
		Y-9 Medical Assistance Aircraft (运-9 医疗救护机)	1
		Y-8 Long-range Assistance Jammer Aircraft (运-8 远距离支援干扰机)	1
		Y-8 Electronic Countermeasures Reconnaissance Aircraft (运-8 电子对抗侦察机)	1
		Y-8 Electronic Reconnaissance Aircraft (PLAN) (运-8 电子侦察机)	1

	**Bomber Echelon (轰炸机梯队)**	H-6N Bomber (轰-6N)	3
		H-6K Bomber (轰-6K)	6
	**Aerial Refueling Echelon (加受油机梯队)**	HU-6/H-6DU Refueling Aircraft (轰油-6)	2
		J-10B Fighter (歼-10B)	4
	**Carrier-based Aircraft Echelon (舰载机梯队)**	J-15 Fighter (歼-15)	5
	**Fighter Echelon (歼击机梯队)**	J-20A Fighter (歼-20A)	5
		J-16 Fighter (歼-16)	5
		J-10C Fighter (歼-10C)	5

	**Army Aviation Strike Echelon (陆航突击梯队)**	***Recon and Police surveillance (侦察警戒分队)*** Z-9WZ Helicopter (直-9WZ)	5
		Fire Strike fendui/flight (火力突击分队) Z-10 Helicopter (直-10)	9
		Transport fendui/flight (运输分队) Z-19/WZ-19 Helicopter (直-19/武直-19) Z-20 Helicopter[ii] (直-20) Z-8B Helicopter (直-8B)	3 6 9
		Guard fendui/squad (护卫分队) Z-19/WZ-19 Helicopter (直-19/武直-19)	8
	**Trainers (教练机梯队)**	JL-10 (教练-10)	5
		JL-9 (教练-9)	5
		JL-8 (教练-8)	5
		JL-8 (教练-8), Red Falcon Demonstration Team (红鹰飞行表演队)	7

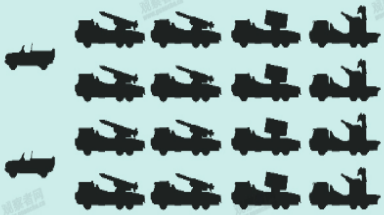
[ii] More details about the Z-20 were revealed a few days after the parade at the 5th China Helicopter Exposition held in Tianjin. Z-20, according to Chinese sources, is "a medium-lift helicopter with double China-made engines," and it can work in complicated meteorological conditions and has good adaptability to high elevations. See: "China Focus: Innovation Fuels China's Helicopter Industry Xinhua," http://www.xinhuanet.com/english/2019-10/16/c_138476229.htm.

Ground Operations Module（陆上作战模块)			
	**Special Operations Equipment Formation (特战装备方队)** [iii]	Hunting Eagle Strike Gyrocopter (猎鹰突击旋翼机)	18
Maritime Operations Module（海上作战模块)			
	**Land-based Anti-ship Cruise Missile (ASCM) Formation (岸舰导弹方队)**	YJ-12B (鹰击-12B)	16
	**Ship-based/Submarine-launched ASCM Formation (舰舰/潜舰 [iv] 导弹方队)**	YJ-18/18A[v] (鹰击-18/18A) anti-ship cruise missile, currently being deployed on Type 052D and Type 055 missile destroyers.	16

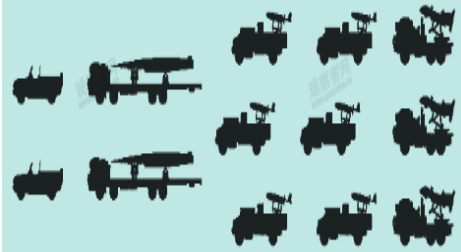
[iii] The formation is composed of 18 gyrocopters and 20 “Bobcat” All-terrain Vehicles (ATVs).

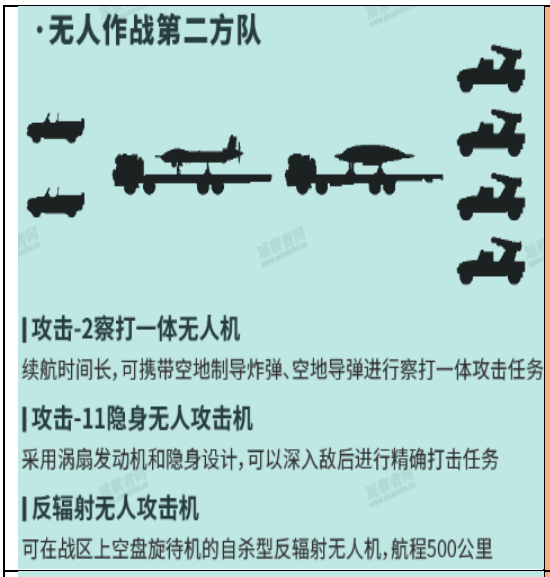
[iv] Also known as “舰载、潜射反舰巡航导弹.”

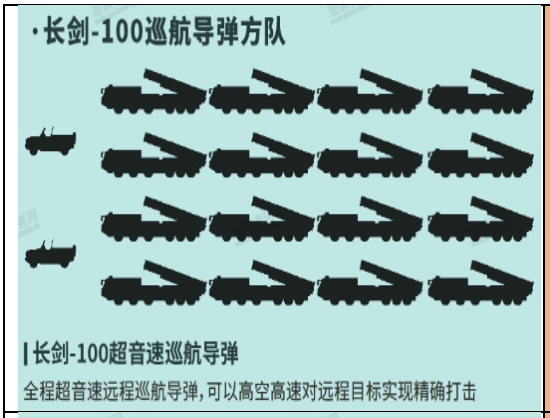
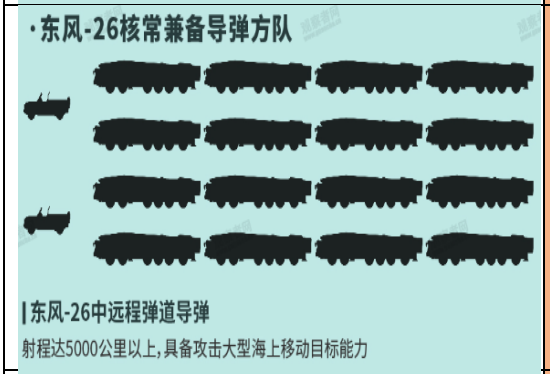
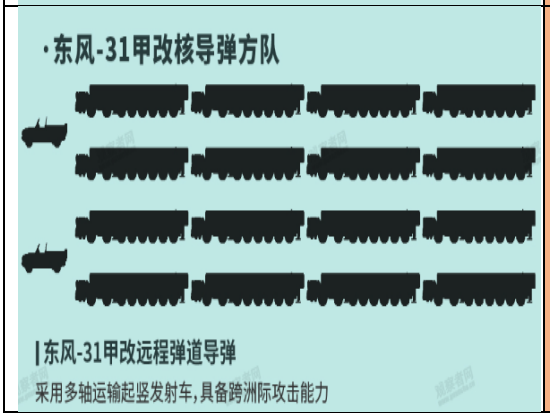
[v] This formation is composed of personnel from a PLAN mobility land-based ASCM regiment (海军机动岸舰导弹某团), currently subordinated to the PLAN’s Coastal Defense Force (岸防兵), which was established in 2005.

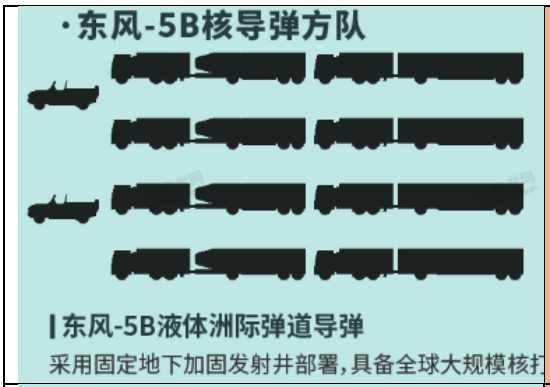
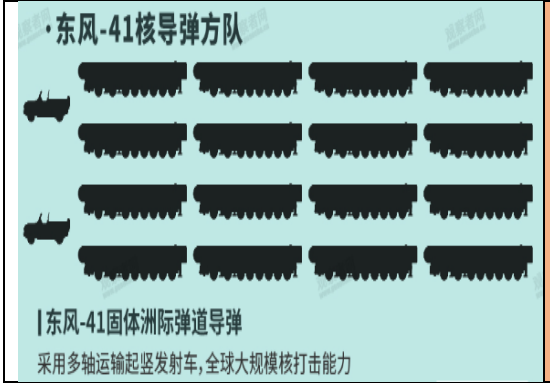
·舰载防空武器方队  海红旗-9B舰空导弹 我军现役舰载远程舰空导弹，采用主动引导头，装备于052C/D和055型导弹驱逐舰上 红旗-16舰空导弹 我军现役舰载中程防空导弹，反导能力强，执行编队防空任务 红旗-10舰空导弹 我军现役末端反导导弹，发射后不管，具备较强反导能力 H/PJ-11型万发炮 我军新一代11管30毫米近防炮，射速超过10000发/分，可有效拦截速度3马赫以下反舰导弹	**Ship-borne Air Defense Weapons Formation (舰载防空武器方队)**	HHQ-9B (海红旗-9B 舰空导弹)	4
		HQ-16 (红旗-16 舰空导弹)	4
		HQ-10 (红旗-10 舰空导弹)	4
		H/PJ-11(H/PJ-11 型万发炮)	4
Air & Missile Defense Module（防空反导模块)			
·预警雷达方队  防空反导雷达系统 我军列装的一系列防空反导雷达系统，能有效保障反导拦截弹有效作战	**Early-warning radar formation (预警雷达方队)**	Unnamed air and missile defense radar system: the multi-vehicle system is a “new-generation, high-mobility multifunction radar that can detect and track aircraft and missiles,” an official commentator on state television said.	
·地空导弹第一方队  红旗-9B防空导弹 远程防空导弹，采用主动引导头，最大射程200公里左右 红旗-22防空导弹 中远程防空导弹，采用复合制导体制，最大射程超过100公里	**SAM 1st Formation (地空导弹第一方队)**	HQ-9B surface-to-air missiles (SAM): long-range, active radar homing SAM, with a maximum range of approximately 200 km.	8
		HQ-22 SAM: medium-range, radar guided SAM, with a maximum range of approximately 100 km.	8

	**SAM 2nd Formation (地空导弹第二方队)**	HQ-12A SAM	8
		HQ-6A SAM system, near to medium-range, equipped w/SAM and Type 730 Close In Weapon System (CIWS)	4
	**Field Operations SAM Formation (野战防空导弹方队)**	HQ-17A SAM	8
		HQ-16B SAM, currently deployed as part of the Group Army field operations air and missile defense system, with a maximum range of 80 kilometers, capable of joint warfighting with the PLAAF's air and missile defense network	8
Information Operations Module（信息作战模块)			
	**Information Operations 1st Formation (信息作战第一方队)**	Information reconnaissance and jamming combat vehicles	4 types and 16 vehicles
	**Information Operations 2nd Formation (信息作战第二方队)**	Surveillance jamming and area denial combat vehicles	4 types and 16 vehicles

·信息作战第三方队  装备频谱监测车、无线电接入节点车、卫星通信车、散射通信车	**Information Operations 3rd Formation (信息作战第三方队)**	Spectrum surveillance, radio connection, satellite communications, and scatter communications vehicles	4 types and 16 vehicles
·信息作战第四方队  装备气象水文勘测车、地形观测车、预报保障车、测绘导航车	**Information Operations 4th Formation (信息作战第四方队)**	Meteorological and hydrographic survey vehicle, topological observation vehicle, forecast support vehicle, and survey and navigation vehicle	4 types and 16 vehicles
Unmanned Operations Module（无人作战模块)			
·无人作战第一方队  无侦-8高空高速侦察机 大型战略高空高速无人侦察机，可执行超音速中远程战略、战役侦察任务 侦察校射无人机 实施200公里以内的战役、战术空中侦察，续航时间10小时 小型侦察无人机 采用隐身设计和涡喷发动机的高空高速无人机，续航时间为2小时，最高时速可达800公里/小时，可在9000米的高度执行任务	**Unmanned Operations 1st Formation (无人作战第一方队)**	WZ-8 high-speed, high-altitude reconnaissance unmanned aerial vehicle (UAV) [possible serial numbers 21311 and 21312]. Capable of supersonic medium and long range strategic and tactical surveillance missions	2
		Reconnaissance and adjustment UAV	3
		Small reconnaissance UAV, stealth design, turbojet engine, 2-hour-range, maximum speed/hour 800km/h, can operate at an altitude of 9km.	3
		Mid-range, high speed UAV(中程高速无人机), may be used to enable targeting and conduct bomb damage assessment (火力引导和打击毁伤效果评估)	3

	**Unmanned Operations 2nd Formation (无人作战第二方队)**	GJ-2 (攻击-2 察打一体无人机) reconnaissance and strike UAV: long range	1
		GJ-11(攻击-11 隐身无人攻击机) stealth unmanned strike UAV: turbojet engine, stealth, and capable of penetration and precision-strike	1
		Anti-radiation strike vehicle (反辐射无人攻击机): anti-radiation “suicide drone,” range:500 km	4
	**Unmanned Operations 3rd Formation (无人作战第三方队)**	Surveillance and jamming UAV (侦察干扰无人机): battlefield electronic reconnaissance, suppression and jamming within a 200 km radius, endurance time up to 10 hours.	Two types and nine in total
		Unmanned Underwater Vehicle (UUV/水下无人潜航器): HSU-001	2
Strategic Strike Module（战略打击模块)			
	**DF-17 Conventional Missiles Formation (东风-17 中近程弹道导弹)**	**DF-17** Parts of the U.S. intelligence community assess that the DF-17 is a medium-range system, with a range capability between 1,800 and 2,500 kilometers. The missile is expected to be capable of delivering both nuclear and conventional payloads and may be capable of being configured to deliver a maneuverable reentry vehicle instead of an HGV	16

	**CJ-100 Cruise Missile Formation (长剑-100 超音速巡航导弹)**	Changjian-100 supersonic cruise missile: supersonic long range cruise missile, capable of high-altitude and high speed precision strike	16
	**DF-26 C Combined Nuclear/Conventional Missile Formation (东风-26 核常兼备导弹方队)**	Capable of attacking “large, moving, and maritime target (大型海上移动目标),” up to 5,000 km in range	16
	**Julang-2 Missile Formation (巨浪-2 导弹方队)**	Julang-2 Submarine-launched Ballistic Missile (巨浪-2 潜射弹道导弹)	16
	**DF-31AG Nuclear Missile Formation (东风-31 甲改核导弹方队)**	Dongfeng-31AG long-range, intercontinental ballistic missile	16

	**DF-5B Nuclear Missile Formation (东风-5B 核导弹方队)**	DF-5B intercontinental-range, silo-based, liquid propellant ICBM, global strike	4
	**DF-41 Nuclear Missile Formation (东风-41 核导弹方队)**	DF-41 solid-fueled, road-mobile ICBM, capable of carrying out large-scale global strike	16

Who Owns What

When it comes to air assets, the PLAAF manages almost all of the PLA's aircraft and its major air and missile defense systems. The PLA Army Aviation operates a number of helicopters whereas the PLA Navy (PLAN) Naval Aviation also owns a number of ship-borne and special mission aircraft and operates a number of air and missile defense systems. The PLA Rocket Force (PLARF), the former PLA Second Artillery, currently manages both China's conventional and nuclear missile systems. The PLA Strategic Support Force (PLASSF), established in December 2015, is believed to be operating China's space, cyber and electronic warfare (EW) systems. According to Cai Zhijun (蔡志军), Deputy Director of the Office of the Military Parade Leading Small Group (阅兵领导小组办公室副主任) and a Deputy Director of the Operations Bureau of the CMC Joint Staff Department (中央军委联合参谋部作战局副局长), the personnel and equipment participating in the parade were mainly from the PLA's Central Theater Command, and the formations are organized in accordance with the principles of "joint operations (联合作战)," and the overall display had been divided into "combat modules (作战模块)" to reflect the "coordinated use and grouping of combat forces (统筹作战力量运用编组)" from various services and branches.[7] Nevertheless, the formations on display, with a few exceptions, were mostly composed of personnel and equipment from individual services, rather than in a truly "joint" fashion. Below are a few key takeaways from the assessment of the underlying organizational elements of the paraded formations.

PLAAF and PLAN "Joint Squadron" for the First Time

It is worth noting that the PLAAF and the PLAN, for the first time in the PLA history, formed a "joint squadron (中队混编) in the Support Aircraft Echelon.[8] The PLAN's Y-8 electronic reconnaissance aircraft was flown alongside the PLAAF's Y-8 jammer and Y-8 electronic countermeasures (ECM) aircraft.[9] Although it appears to be a rather small step towards "joint operations" between the PLAAF and the PLAN, the symbolic meaning of flying PLAAF and PLAN special mission aircraft in a single formation should not be underestimated. First, it demonstrated that the PLA continued to explore practical avenues for breaking down the service barriers as its ongoing military reform and reorganization deepens. Second, as noted by Yu Yuan (余源), one of the PLAAF pilots flying in this formation, "the takeoff and landing and cruise control capabilities [of different types of aircraft] are quite different," hence they had to work on improving the "coordination of the platforms of Y-9 and Y-8 in the air (平台空中协同)" during the preparations for the air parade.[10] It is unclear if the "coordination" merely covers radio calls or it also included cross-platform data transmissions; however, the grouping of different types of aircraft from two services at least suggests that the PLA had taken this into consideration.

The debut of the Y-9 communications countermeasures aircraft also demonstrated that the PLAAF is steadily improving its EW capabilities. "EW will be indispensable in any future warfare," noted the lead pilot of the echelon and commander of a PLAAF air division (航空兵某师师长)[11], Chen Gang（陈钢), and "all of the special mission aircraft demonstrate that China's 'new-quality combat force (新质作战力量)' is gradually building up."[12] Chen's division was also noted to be "the only special mission aircraft unit (特种机部队) within the PLA that has integrated electronic reconnaissance and jamming and suppression (干扰压制)" and, in recent years, "conducted major missions such as police patrol in the East China Sea (警巡东海) and combat patrol in the South China Sea (战巡南海)." Indeed, the Y-9 is designed to "provide electromagnetic support for operations through long-range jamming, degrading enemy command and control, and destroying enemy battlefield situation awareness," and it symbolizes that the development of the PLA's EW capability has "entered a new phase (上了一个新的台阶)."[13] A few days after the parade, Shen Jinke (申进科), the PLAAF spokesperson, again referencing the debut of PLAAF EW aircraft during the parade, announced that the PLAAF plans to add a fifth actual-combat training brand[vi], "Electron Surge (擎电)" exercise, to focus on enhancing the overall EW capabilities of the Air Force.[14]

The Unmanned Formation

In PLA jargon, unmanned systems have been regarded as the "amplifiers of combat effectiveness under informatized conditions (信息化条件下作战效能的倍增器)" [15] The paraded unmanned operations module offered a glimpse of a suite of autonomous systems as well as the possible command and control structures of such systems:

[vi] The PLAAF currently has four so-called Training Brands, namely, the Red Sword (红剑), Blue Shield (蓝盾), Golden Helmet (金头盔), and Golden Dart (金飞镖). For more details, see: Jana Allen, Ken Allen, *The PLA Air Force's Four Key Training Brands*, CASI Report, 2018.

- The 1st Unmanned Formation

Composed of 11 UAVs of four different types, was formed by mixed personnel and equipment from units subordinated to the PLA Army (PLAA) 82nd Group Army and an unidentified PLAAF air division (陆空混合编组). [16]

- The 2nd Unmanned Formation

Composed of UAVs managed by an unidentified PLAAF unit stationed in China's plateau region in Xinjiang.[17] According to an interview given to his hometown media, Wei Chuanxian (魏传贤), head of the formation, noted that he was the only political work cadre/officer leading a formation in the entire parade.[18] Wei also revealed that his unit was the first PLAAF unit that had been deployed to the plateau region to experiment the use of UAVs, and it had participated in the PLAAF's "Red Sword (红剑)" exercises as well as the Shanghai Cooperation Organization's (SCO) "Peace Mission 2014" joint exercises.[19]

- The 3rd Unmanned Formation

The UAVs demonstrated in this formation were carried by a Central TC Army division, and the widely discussed UUVs, HSU-001, were paraded by a Southern TC Navy comprehensive support base. [20] It was also revealed that the Army division has a long lineage in the Chinese military that can be traced back to 1928. Meanwhile the Naval base, in contrast, is a new unit with "a new type of support force" symbolizing the PLAN's transformation and created in 2019. Its main functions include: logistic support, equipment maintenance, port logistics, and security police patrols.[21]

The Debut of the PLARF as a "Strategic Service"

The expansive display of the PLA's conventional and nuclear missiles was carried out by PLARF personnel. The PLARF service formation was comprised of a total of 352 officers and enlisted personnel, 83 of whom were said to have had "actual-munition launch experience (实弹发射经历)."[22] According to the official Chinese media, the average age of the highly-selected parade participants from PLARF front-line units, , was 23 years old.[23] The Strategic Strike Module of the parade embodied the role of the PLARF as a "strategic service (战略军种)," and it showcased a total of six different types of missiles that are in service with the PLARF units (and the PLAN's JL-2 missiles).

- DF-17 Conventional Missiles: personnel selected from two conventional missile brigades of an unidentified PLARF base, led by Major Generals Zhang Jianqiang (张建强) and Wang Xinguo (王新国)[24]. They belong to China's first conventional surface-to-surface missile unit (常规地地导弹部队).[25]
- CJ-100 Cruise Missiles: PLARF Cruise Missiles: led by Major Generals Fan Juxian (樊具贤) and Li Jiaqin (李家勤), personnel selected from two cruise missile units, both of which were established at the start of the 2000s.[26]
- DF-26 Nuclear and Conventional Missiles: personnel selected from two "new and elite (新锐)" missile units, led by Major Generals Zhang Jichun (张继春) and Liu

Tongjiang (刘同江)[27] As "newly formed units (新军)",these two units reportedly have been deployed to China's plateau and desert regions to carry out "all-element and all procedure (全要素全流程)" actual -munition launch missions under adverse environmental conditions.[28]

- DF-31AG Nuclear Missiles: personnel selected from two missile brigades of a PLARF base stationed in China's plateau region,[29] led by Major Generals Yuan Dehua(袁德华) and He Jun (何骏).
- DF-5B Nuclear Missiles: personnel selected from one missile brigade, led by Major Generals Wang Xiaochu (汪晓初) and Deng Rongzhen (邓荣珍);[30]
- DF-41 Nuclear Missiles: personnel selected from two missile brigades of an unidentified PLARF base, led by Major Generals Zhao Qiuling (赵秋领) and Sun Le (孙乐) [31]
- PLAN's JL-2 Missiles: led by Rear Admirals Wu Dongzhu (吴栋柱), and Liu Entao (柳恩涛), the formation was composed of 12 missile vehicles. It was the debut of this new type of submarine-launched strategic missiles. Official Chinese report noted that the personnel of the formation were mainly selected from a PLAN base, and it recently also participated in the Naval parade marking the 70th anniversary of the founding of the PLAN.

The Information Battlefield

According to limited official reports about this newly-established force, the PLASSF is believed to represent the PLA's integrated information warfare capability, However, official media covering this parade only specifically noted the 4th Information Formation within the Information Operations Module as being managed by the PLASSF.[32] Led by the PLASSF Major Generals Deng Hongqin[vii] (邓洪勤) and Jin Feng (金锋), the 4th Information formation was composed of more than 70 PLASSF personnel from a PLASSF unit fighting on the "information battlefield (信息疆场)."[33] This formation showcased four types of indigenously-designed vehicles that are in service with the PLASSF: the meteorological and hydrographic survey vehicles, topological observation vehicles, forecast support vehicles, and survey and navigation vehicles.[34] Also worth noting is that the SSF personnel formation[viii] in the parade, led by Major Generals Wang Xuewu (王学武) and Kang Huaihai (康怀海), were notably seen wearing Army, Navy, and Rocket Force service dresses with SSF shoulder batches, which may be interpreted as a further illustration of the PLA's aspiration of becoming a truly "joint" military. The other three information formations included:

[vii] Deng Hongqin's last known position was the Chief of Staff (参谋长) of the PLASSF Xichang Satellite Launch Center (西昌卫星发射中心) as of July 2016. See: https://www.thepaper.cn/newsDetail_forward_1498947

[viii] The formation leaders (方队长) are commanding officers of the unit(s), not necessarily the Commander(s).

- The 1st Information Formation

Composed of information reconnaissance and data jamming vehicles, it was operated by more than 140 military personnel (20% of whom have master's and above degrees) from an unidentified PLA unit.[35]

- The 2nd Information Formation

Composed of personnel and equipment from a PLAA ECM brigade,[36] and led by Major Generals Li Fayi (李发义) and Yang Xiaokang (杨小康). This ECM brigade was said to be a "new-type of combat force" formed during the PLA's ongoing military reform, and was formerly known as the Independent ECM Battalion (独立电抗营) of the Xinjiang Military Region (MR). The transformation of this unit from a battalion to brigade also demonstrated that it "has been upgraded from a tactical force to campaign-grade force."[37]

- The 3rd Information Formation

Led by Major Generals Sun Baotai (孙宝泰) and Jiang Xianfang (景贤舫), it showcased the PLA's "latest accomplishment of mobile communications equipment" that plays a crucial role in the PLA's "networked information system-based joint and all-terrain combat capabilities (基于网络信息体系的联合作战、全域作战能力)." [38] All of the personnel in this formation were said to be capable of operating at least two types of information communications equipment.[39]

Endnotes

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