

Jemes

Cyber Specialists & Future Force Structure

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The heat, the flies, the teeming hordes in massive cities, and the insufferable sand in everything — all because New Middle East oil was no longer needed to power the world. Jemes looked down at his wrist after feeling the unmistakable tingle of an incoming notification from his Task Force (TF) leader. Putting down his multipurpose weapon, careful not to bend the electronic leads that powered the encephalonic disruptors, Jemes thought again what a pain it was to be on this mission in the New Middle East. But the Integrated Communities of the United States of America and the Associate Politikos voted overwhelmingly to deploy this military mission to restore order in area where the few remaining world powers, and some “wannabes,” conducted proxy wars for the last two decades.



Jemes mentally set his neural implants, acknowledging the team leader's alert. His eyes widened as the Soldier-System Dyad (SSD) task force leader uploaded graphics and orders for the next mission. As a member of a SSD, Jemes trained in several military specialties with neural uploads during the Mission Rehearsal Exercise; for this mission, he performed as an intelligence specialist and fires officer. He would work in tandem with Fred, the other member of his SSD. Between the two of them, they generated the capabilities of a full platoon of 2020 soldiers.

SSDs were the result of a combination of Special Forces multi-skilled teams and more traditional soldier capabilities into a single two-person unit. Dyads could be combined into larger units – task forces - that produced a wide variety of capabilities tailored to unique circumstances. The wars of the late 2010s convinced military leaders of the need for multi-skilled, responsive, and flexible soldiers with high levels of maturity. The days of an eighteen year old private handed automatic weapons with six weeks of training and told “just do what the Sergeant tells you” were long gone. Soldiers today were expected to possess three or four skills at the expert level and be able to accept neuro-stimulant nanobot injections to rapidly acquire any needed skill for an upcoming mission.

Recruiting for SSD began with screening for military aptitude as part of the universal career assessment profiles testing as early as twelve years old. Of the children identified with military aptitude, a smaller number (less than 5%) received further screening for acquisition as members of SSDs. SSD teams paired for their entire career, but the second and third order effects of that decision were still being examined. Although the Army SSD program was still new, there was a plan to, over time, change the entire Army to SSD units by 2055. The overall effect would be a much smaller but infinitely more capable Army.

SSD-controlled assault robots augmented each team; they performed the most dangerous part of the mission. As the character of warfare changed over the last thirty years, one trend line remained constant: a continuing,

unchangeable increase in lethality on the battlefield. No longer could any system have any reliable chance of surviving a first munition strike to continue the mission. The days of taking a first-round hit and moving on to complete the mission ended abruptly with the advent of hyper-velocity and other advanced weapons systems.

Increasing lethality and changing demographics led to a shortfall in available manpower among leading nations. This in turn led to the only solution available: robotization of armed forces. The combination of aerial, ground, and in this case even subterranean robotic systems had massively changed warfare: increasing lethality to exposed combat systems and driving the human soldiers into safer positions simultaneously controlling multiple unmanned combat systems. Sophisticated robots offered opportunities to use coercive force without jeopardizing human life; this often made war more likely and always more expensive. CyRobots designed to perform complex combat missions were not cheap. The combination of advanced neuro-processors, a dizzying array of integrated on-board sensors, multiple weapons systems, and capability to go fully autonomous made the 2040 Robotic Warrior a potential budget buster. Cheaper options based on commercial off-the-shelf technology existed, but the low budget version of the Robot Warrior required more tending by human operators. When one of the cheap robot warriors malfunctioned, it often led to catastrophic consequences for the users: a dangerous, rogue robot with advanced weapons and no rules of engagement.

As the SSD task force made digital communications checks and activated the encrypted tethers to the robotic systems, the atmosphere in the command vehicle rippled with tension. The robot warriors moved out smoothly toward the objective in the classic “V” formation, some on treads, some on wheels, and many on repeller pads. The scout robots kept watch from high in the air. Jemes again noticed an itch where the embedded optic device rapidly conveyed information from sensors on the robots to him and other Soldiers. By blinks and eye movements, Jemes controlled the data flowing directly into his visual cortex. As the US Army multimode command hovercraft begin to slide into the designated formation for this attack, Jemes’ visual inputs suddenly went black. After a moment of dizziness, he realized that the Cyber Specialist had cut the feeds. Another cyber-attack. Thankfully, this was a routine occurrence, and after a few minutes of software cleaning and firewall re-establishment, connectivity was restored. It was hard to say if this was enemy activity or just another entrepreneur trying to pirate robotic software for sale in the black market.

CONTACT LEFT FRONT was the silent scream that appeared in Jemes’ mind. He blinked twice and saw a half a dozen flaming assault robots about two kilometers to his front. Data flowed in at an incredible rate, and Jemes quickly realized that adversary fire support systems has used an EMP weapon to “crisp” the robot electronics. The fires were a result of burning wire and proto-jelly used in the central processor. Using data from the robots’ embedded sensors sent at the time of destruction, Jemes determined weapon type and angle of attack. Some quick power density field calculations and Jemes uploaded the likely weapons location to his attack system and with the thought EXECUTE a multimode attack—cyber, electronic warfare, and projectile—launched. War was a lot different in 2040, robots, human-computer interfaces, but destroying the enemy was still what Soldiers did.