

Table 8.

COMMAND & CONTROL TECHNOLOGIES

Technology Areas	China	U.S.	Russia	Japan	Germany	U.K.	France
C ⁴ I ² ¹	1	4	2	3	3	4	4
Information Security ²	2	4	2	2	4	4	3
High Performance Computing	1	4	2	4	3	3	3
Intelligent Systems ³	1	4	2	4	2	3	1
Networks & Switching ⁴	2	4	2	4	4	4	4
Signal Processing ⁵	1	4	2	3	3	3	4
Transmission Systems ⁶	1	4	2	4	4	4	4
Software	1	4	2	3	3	4	4

Legend: Production Capabilities: 0 = No capability or no consensus. 1 = Limited. 2 = Some. 3 = Majority. 4 = All.

1. Command, Control, Communications, Computing, Intelligence and Information (C4I2) Systems
2. Cryptographic and cryptoanalytic technologies essential for keeping data secure and breaking ciphertext in intelligence dissemination, global surveillance, computer and communications networks.
3. Technologies (hardware & software) allowing systems to adjust their functionality without human operator intervention or preprogrammed logic.
4. Technologies essential for maintaining communications at all times with all elements. They include radiation hardened telecommunications, optical switching, and equipment capable of operating in extreme heat or cold.
5. Technologies associated with ensuring the accuracy and reliability of data transmission in environments with high levels of interference, including intentional countermeasures.
6. These technologies minimize third party interception and neutralize electronic warfare capabilities used to disrupt accurate reception of transmitted information.