## (U) There is More Than One Way to QUANTUM



| Name             | Description   | Inception<br>Date | Status      | Operational Success   |
|------------------|---|-------------------|-------------|---|
| CNE              |   |                   |             |   |
| QUANTUMINSERT    | Man-on-the-Side technique     Briefly hi-jacks connections to a terrorist website     Re-directs the target to a TAO server (FOXACID) for implantation  | 2005              | Operational | Highly Successful (In 2010, 300 TAO implants were deployed via QUANTUM INSERT to targets that were un-exploitable by and other means) |
| QUANTUMBOT       | Takes control of idle IRC bots Finds computers belonging to botnets, and hijacks the command and control channel  Takes control of idle IRC bots  | Aug 2007          | Operational | Highly Successful<br>(over 140,000 bots co-opted)   |
| QUANTUMBISCUIT   | Enhances QUANTUMINSERT's man-on-the-side technique of exploitation     Motivated by the need to QI targets that are behind large proxies, lack predictable source addresses, and have insufficient unique web activity. | Dec 2007          | Operational | Limited success at NSAW due to high latency on passive access (GCHQ uses technique for 80% of CNE accesses)                           |
| QUANTUMDNS       | DNS injection/redirection based off of A Record queries.     Targets single hosts or caching name servers.  | Dec 2008          | Operational | Successful<br>(High priority CCI target exploited)  |
| QUANTUMHAND      | Exploits the computer of a target who uses Facebook   | Oct 2010          | Operational | Successful  |
| QUANTUMPHANTOM   | Hijacks any IP on QUANTUMable passive coverage to use as covert infrastructure.   | Oct 2010          | Live Tested | N/A   |
| CNA              |   |                   |             |   |
| QUANTUMSKY       | Denies access to a webpage through RST packet spoofing.   | 2004              | Operational | Successful  |
| QUANTUMCOPPER    | File download/upload disruption and corruption.   | Dec 2008          | Live Tested | N/A   |
| CND              |   |                   |             |   |
| QUANTUMSMACKDOWN | Pevents target from downloading implants to DoD computers while capturing malicious payload for analysis.   | Oct 2010          | Live Tested | N/A<br>TS//SI//R  |