

Special Operations Forces Industry Conference

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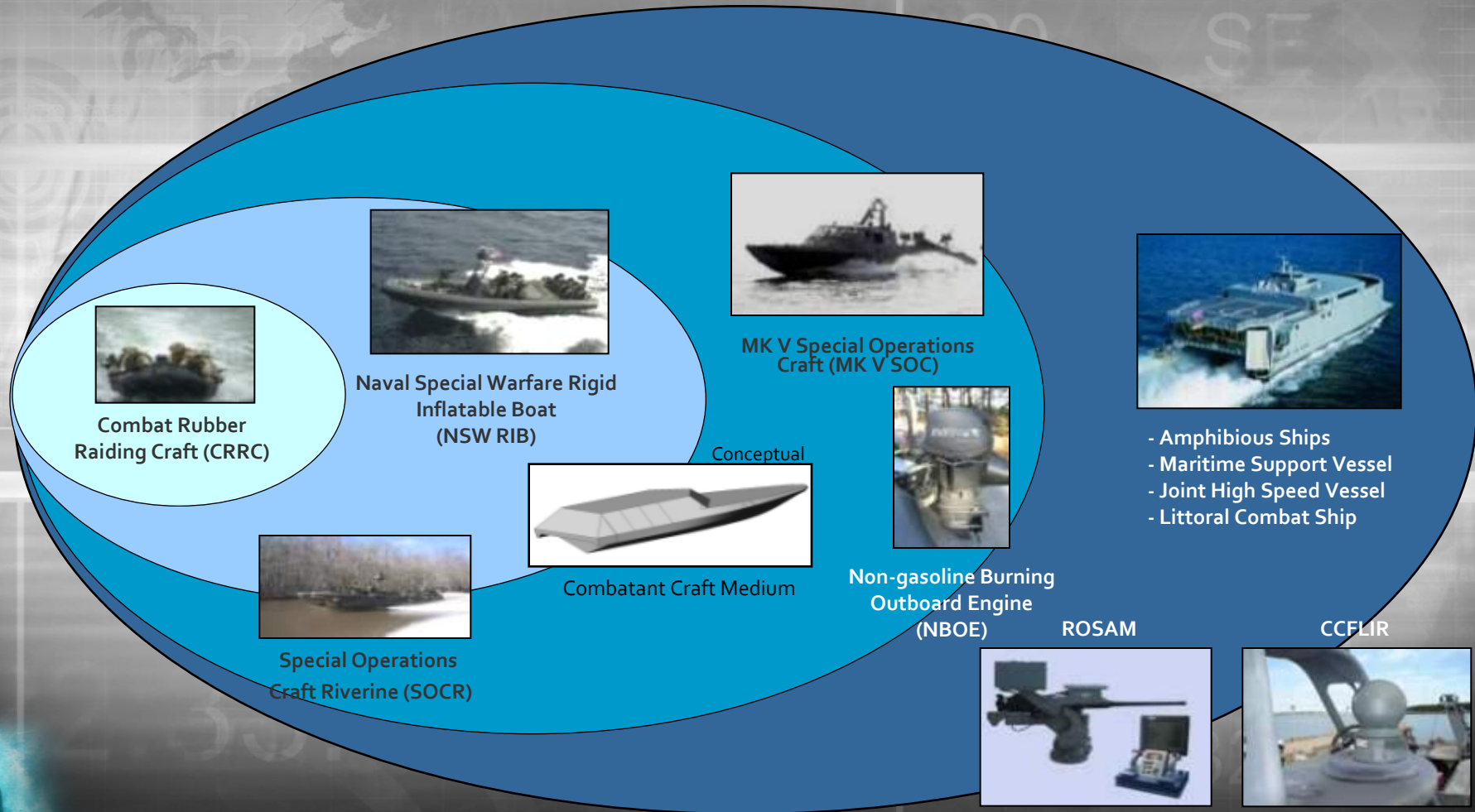
High Speed Communication

Maritime Systems



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Surface Mobility Systems



Maritime Systems



Technology Areas of Interest

- High Speed Communications
- Secure Wireless Intercom System



Maritime Systems



High Speed Communication

- **Current status:**
 - Mobility craft have low to medium HF/VHF/UHF speed communications that provide data rates on the order of 64 Kbps.
 - These systems restrict ability to receive and distribute timely, robust, situational awareness information to and from other theater participants.
 - Existing high data rate SATCOM antennas are too big or too expensive to be used on combatant craft.



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High Speed Communication

- Where we want to be:
 - Equip craft with IP-67 rated, low-mass (<100 Lbs), low-profile (<10" in height), low-cost (<\$100K), high data-rate Ku-band SATCOM communications capability that provides zenith to near-horizon coverage achieving data rates up to 1.5 Mbps downlink and 512 Kbps uplink while the craft is on-the-move.



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Secure Wireless Intercom System

- **Current status:**
 - **AN/VIC-3 wired intercom**
 - Constrains Crew mobility by restrictive length of intercom cables
 - Trip hazards and cable damage caused by SWCC and embarked SOF operator movement, an inherent wired intercom weakness
 - Temporary loss of communications caused by crew members disconnecting from one station to move to another station, creating situations when the craft Officer in Charge was unable to provide timely direction to crew during tactical operations
 - **Each crew member currently carries AN/PRC-148 MBITR hand held radio**
 - Type-1 encrypted, half duplex, no access to boat radios
 - **Numerous manufacturers of Wireless Intercom systems, but none at the present time is capable of meeting the performance parameters**



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Secure Wireless Intercom System

- Where we want to be:
 - NSA approved Type-1 encrypted full duplex Wireless Intercom
 - Provide crew access to existing boat radios with no EMI/EMC issues
 - User worn transceiver as small as possible, battery life ≥ 12 hours
 - Water immersion at one meter for 12 hours and IP67 rated



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