

narios identified and evaluated by the US Government, Bell-Boeing, and independent analysis companies.

The multiple design mission key performance parameters (KPP) and aircraft capabilities are presented in Figure 3. The V-22 meets or exceeds all mission requirements. In addition, the independent variables used in the compliance calculation all have built-in buffers to ensure that the required KPP's are met at the end of EMD in 1999.

Key Performance Parameter	MV-22 Projection	CV-22 Projection
Pre-Assault / Raid (18 Troops)	200 NM	214 NM
Land Assault (24 Troops)	200 NM	275 NM
Land Assault (10,000 Lb Load)	50 NM	50 NM
Amphibious Assault (24 Troops)	2 x 50 NM	2 x 71 NM
Amphibious Assault (10,000 Lb Load)	50 NM	111 NM
Self-Deploy (With Refueling)	2100 NM	2565 NM
Long Range SOF Missions	500 NM	--
MV-22 Cruise Speed (V <sub>CR</sub> at 3000 Ft / 91.5°F)	240 Knots	275 Knots
CV-22 Cruise Speed	230 Knots	--
Survivability	12.7 mm	12.7 mm
V/STOL / Shipboard Compatible	Yes	Yes
Aerial Refueling	Yes	Yes

Figure 3. V-22 Projected Capabilities for Prime Missions

For the Marine Corps, the Osprey's speed and range provide an expanded battle-space that complicates the enemy's ability to defend their territory. Figure 4 shows the increased combat reach the Marines will have while making an amphibious assault, relative to the capability of the present Marine assault medium lift aircraft, the CH-46. The range capability of the Osprey permits the amphibious fleet to use the sea as

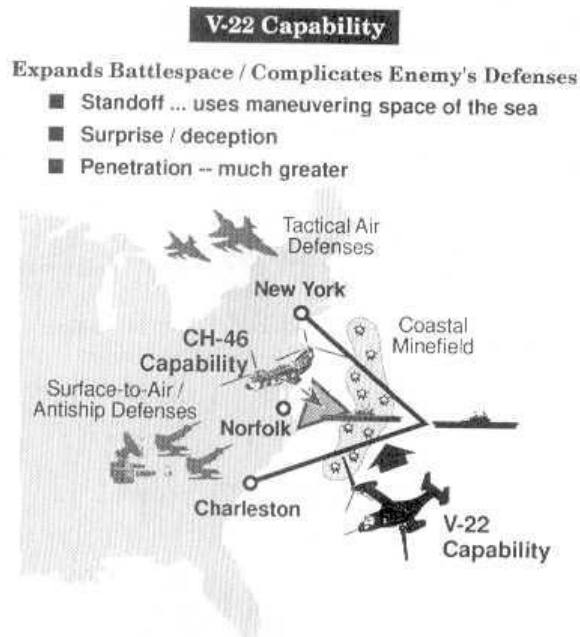


Figure 4. Enhanced Reach in War

operational maneuver space. This increased capability allows greater standoff distance for the amphibious fleet, thus avoiding coastal minefields and missile defenses. It also enhances the element of surprise by providing a capability for feint and deception.

Special Operations Forces (SOF) require high-speed, long-range V/STOL aircraft capable of penetrating hostile areas. The SOF variant of the V-22 will meet this requirement. The SOF V-22 is capable of covert penetration of medium to high threat environments in low visibility, while employing self-defensive avionics and secure, anti-jam, redundant communications. The SOF V-22s inherent long-range and self deployment ability maximizes mission security and minimizes logistics cost. It has an unrefueled combat range sufficient to satisfy current and emergent military needs and carries a built-in refueling boom for range extension. The SOF V-22 has the necessary speed to complete most operations within one period of darkness and can operate from air capable ships without reconfiguration or modification.

Figure 5 portrays the potential advantages of using the V-22 in the initial stage of "Operation Eastern Exit", the evacuation of 61 Americans and several foreign Ambassadors from the US Embassy in Mogadishu, Somalia. The actual evacuation by CH-53Es, carried to waters off Somalia by the USS Trenton (LPD-14) from its anchorage off Oman, took 87 hours and included three aerial refuelings per helicopter. With the V-22, the same mission could have been flown directly from Oman using two aerial refuelings with a total mission time of less than seven hours.

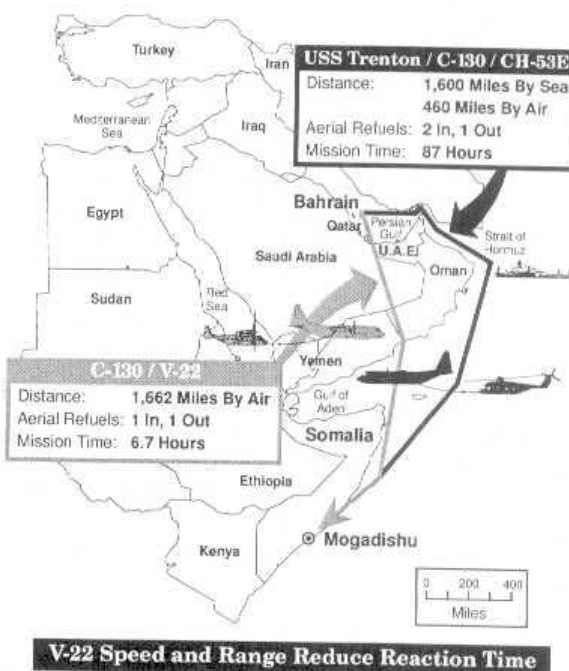


Figure 5. Operation Eastern Exit - Comparing Helicopter and V-22