

Modern Day Marine: PMA-275



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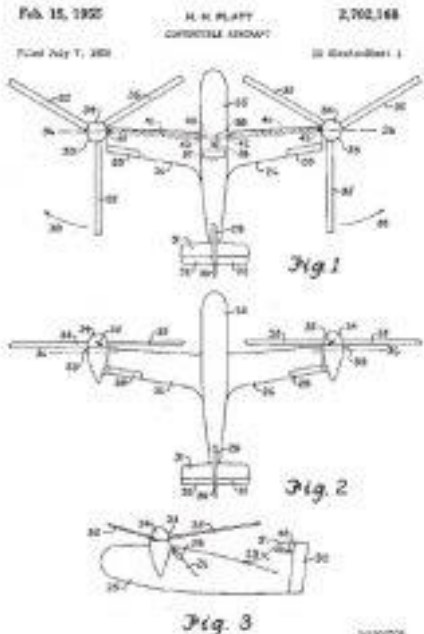
PMA-275 V-22 Joint Program Office: Relentlessly Ready, Reliable and Relevant



Marine Aviation Acquisition Officer



A Brief History of Tiltrotor Technology



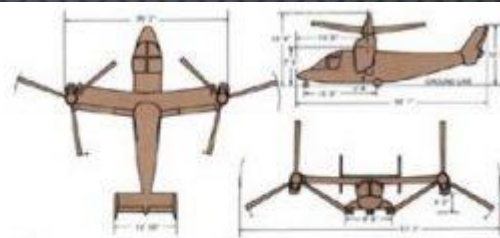
The Transcendental Model 1-G (Photograph courtesy of John Schneider)



The Bell XV-3, initial configuration. (Bell Photograph 210021)



XV-3 in airplane-mode flight, December 1958 (U.S. Army photo, image is in the public domain)



Three-View of the Bell XV-15 Tilt Rotor Research Aircraft (Bell Helicopter Company)



The Bell XV-15 Tilt Rotor Research Aircraft Cruise Flight Mode (NASA)



Marine Corps MV-22 Osprey (US Marine Corps image is in the public domain)



V-22, An Unmatched Capability

A multi-engine, dual-piloted, self-deployable, medium lift, vertical takeoff and landing (VTOL) tilt-rotor aircraft designed for combat, combat support, combat service support, and special operations missions worldwide.

USMC's MV-22B



Assault-support/medium-lift for ground forces in multiple theaters of operation from expeditionary sites to afloat

USN's CMV-22B



Long-range/medium-lift for intra-theater aerial logistics and Carrier Onboard Delivery (COD) mission.

AFSOC's CV-22B



Long-range infiltration, exfiltration and resupply across the spectrum of competition and conflict.



Pursuing PRGB Improvement Initiatives

X-53 Steel



Triple-Melt steel will be the source material for the internal components of the PRGB which will drastically reduce the likelihood of material defects in critical gears and bearings.

IQA



A redesigned Input Quill Assembly (IQA) will reduce the incidence of the wear-out mode observed in previous IQA failures that led to aircraft Hard Clutch Engagement (HCE) occurrences.

ODSSHI



Osprey Drive System Safety & Health Instrumentation (ODSSHI) will provide continuous drive system component monitoring allowing for predictive maintenance actions and logistics planning.

Enhanced aircraft safety and improved component reliability and durability



Modernization Improvements



VeCToR



V-22 Enhanced Cockpit Technology Replacement (VeCToR) implements necessary obsolescence mitigation for critical systems while providing for future technology upgrades and a pathway to faster, agile, affordable modification efforts.

ReVAMP



Renewed V-22 Aircraft Modernization Plan (ReVAMP) will ensure platform relevance until the end of its service life and the development and fielding of the Next Generation Assault Support (NGAS) aircraft.

FCC



Flight Control Computer (FCC) Re-design replaces the obsolete FCC with a modern processor with capacity to expand automation and augmentation flight capabilities to increase mission success rates and improve aircraft safety.



Stories of Unmatched Capability



Virgin Cruises Resilient Lady





Questions & Comments

