

Lost Communication Procedures

1. Introduction

The Autonomous Rotorcraft Project operates two Yamaha RMAX helicopters (Fig. 1-1). This document describes the lost communication procedures.



Fig 1-1. AFDD Autonomous Rotorcraft Project RMAX helicopter in operation at Fort Hunter Liggett in California.

2. Loss of Communications

Radio checks are performed prior to operations to ensure working voice communications between the crew members on the UHF radio frequency and with ATC on the VHF radio.

In the event that voice communication is lost, all parties also carry cell phones to enable backup communications.

2.1 Loss of Comm with Ground Crew

If the EP and SO lose communication with the ground station, then the EP retakes manual control of the aircraft with the RC transmitter, lands the helicopter, and brings the rotor to a stop. The EP always retains the ability to retake control of the aircraft by depressing the engagement switch on the RC transmitter. The helicopter is always operated within line-of-sight at a straight-line distance of less than 750 ft.

After the vehicle has landed, the SO uses a cell phone to call the GSO to inform him that voice communications have been lost and that operations have been stopped.

2.2 Loss of Comm with ATC

If the EP and SO lose communication with ATC, then the EP retakes manual control of the aircraft with the RC transmitter, lands the helicopter and brings the rotor to a stop. The EP always retains the ability to retake control of the aircraft by depressing the engagement switch on the RC transmitter.

After the vehicle has stopped, the SO uses a cell phone to inform ATC that VHF communications have been lost and that operations have been stopped.