

E. Offshore Flight Operations

E.1. Overview

The Commanding Officer of a unit to which a rotary- or fixed-wing aircraft is assigned must carefully weigh the urgency of each offshore mission. Mission planning for offshore flight operations shall include an assessment of aircrew survivability and the risk management policy stated in Chapter 1 of this Manual. This analysis shall be based on the possibility that the aircrew might be forced into a survival situation during any phase of the mission.

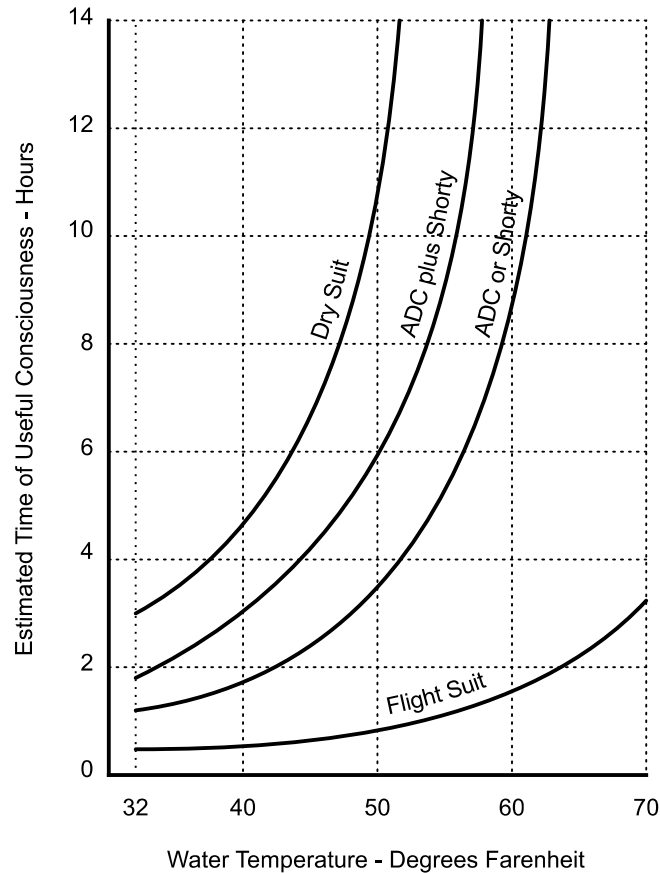
E.2. Aircrew Survivability Factors

There are three factors that should be evaluated for each mission over water:

- Estimated time to loss of useful consciousness
 - Probable survival time
 - Estimated recovery time
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E.2.a. Loss of Useful Consciousness

Loss of useful consciousness adversely affects the probable survival time since the crew member loses the physical ability to control the survival situation due to the debilitating effects of hypothermia, the abnormal lowering of internal body temperature. Even in situations where fatality from hypothermia is highly improbable, cold water greatly facilitates unconsciousness and/or death from drowning, often in the first 10 to 15 minutes, particularly for those not wearing flotation devices.



(Based on experimental data on males with 10% body fat in calm water)

Figure 4-2, Probable Survival Time

E.2.b. Probable Survival Time

Exposure to the chilling effects of cold air, wind, or water can result in fatal hypothermia. The rate of body heat loss increases as air and water temperatures decrease. Fatal results from hypothermia occur over four times more often in water than on land.

The curves in Figure 4-2 were developed using known data points for specific sets of known conditions. In the general case, and even when conditions are close to those used to generate the curves, Figure 4-2 should be used as a guideline, not as a precise indicator.

A large amount of individual variability can be associated with different body sizes, builds, level of body fat, physical fitness, and state of health. Specialized insulated protective clothing (e.g. survival suits, wet suits) are capable of increasing survival time from 2 to 10 times (or more) the basic duration shown in Figure 4-2.

E.2.c. Recovery Time

Recovery time is the total elapsed time from the occurrence of a mishap until the aircrew is rescued. Recovery time includes the time required for recovery resources to become aware of the mishap, ascertain the position of the downed aircrew, proceed to scene, conduct a search, effect rescue, and begin appropriate medical treatment.

E.3. Unescorted Operations

The maximum recovery time should not exceed the estimated time to loss of useful consciousness.

E.4. Escorts

An escort should be provided anytime the Commanding Officer or PIC deems it necessary. An escort is recommended anytime the estimated recovery time exceeds the estimated time to loss of useful consciousness.
