

OVERWATER FLIGHT

Ditching And Water Survival
A GHAFI & FAA "Wings" Seminar



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"FLIGHT PLAN"

- ✈ Threat of Ditching
- ✈ Before You Go
- ✈ Survival Equipment
- ✈ Offshore Operations
- ✈ Ditching Procedures
- ✈ Splashdown & Egress
- ✈ Survival in The Water
- ✈ Rescue
- ✈ Helicopter Pick-Up

Threat of Ditching

- Weather
- Fuel Exhaustion
- Physical Impairment
- Mechanical Failure



Weather

- Get Through Preflight Briefing
- Get Inflight Updates
- Watch Changing Weather Patterns

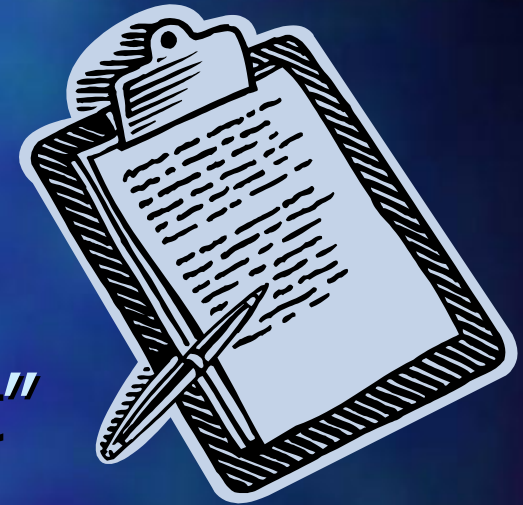


Fuel Exhaustion

- ⌚ Fill Tanks to Weight Limit
- ⌚ Monitor Fuel Usage
- ⌚ Do NOT Fly Into Fuel Reserve
 - FAR 91.151
 - VFR/Day = intended landing plus 30 minutes
 - VFR/Night = " " " 45 minutes
 - FAR 91.167 For IFR Requirements

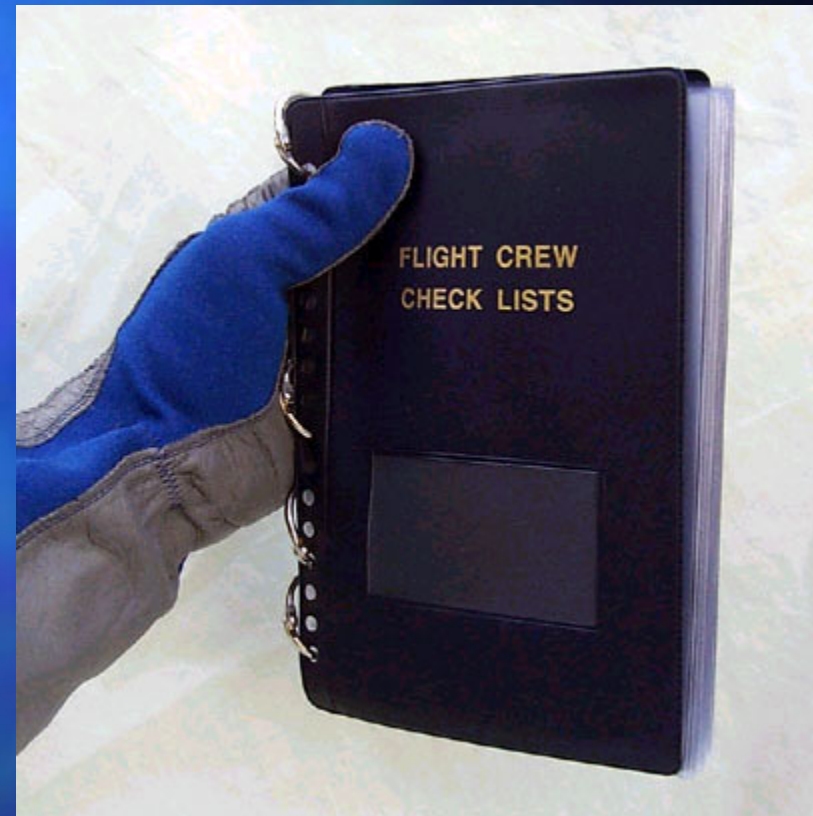
Physical Impairment

- ♥ Do NOT Fly Unless Healthy
 - AIM “**IM-SAFE**” Checklist
- ♥ Abort Flight If Feeling Ill
- ♥ Train passengers to “Pinch Hit”



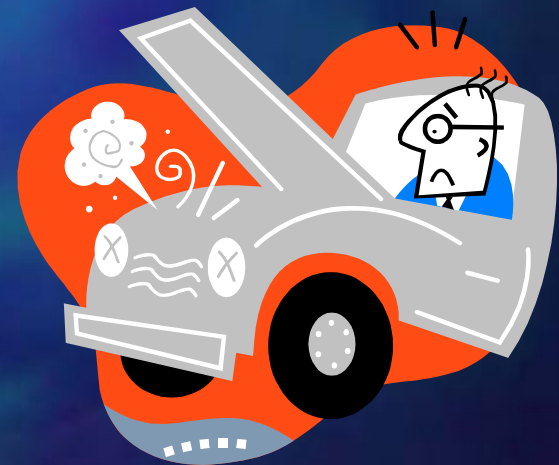
AIM “**IM-SAFE**” Checklist

- ✓ **I**llness
- ✓ **M**edications
- ✓ **S**tress
- ✓ **A**lcohol
- ✓ **F**atigue
- ✓ **E**motion



Mechanical Failure

- Fly a Well Maintained Aircraft
- Conduct a Thorough Pre-flight Inspection & Use a Checklist
- Abort Flight at The FIRST Sign of Trouble



Before You Go

- Dress For The Flight
- Inspect Survival Equipment
- Passenger Briefing
- File a Flight Plan!!



Dress For The Flight

- Based On Weather Enroute
- Keep Critical Items On Your Person
- Preferred Clothing
 - Nomex
 - Wool
 - Cotton
- Do NOT Wear Polyester



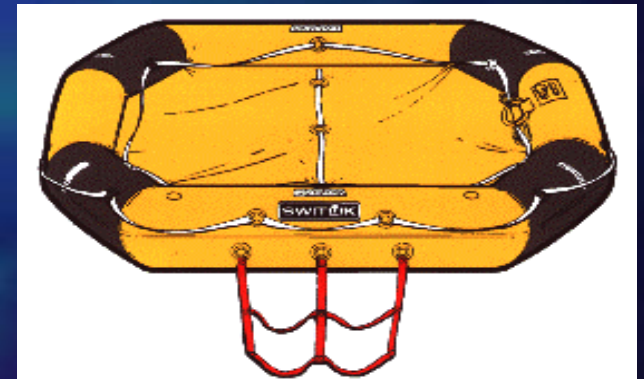
Inspect Survival Equipment

- ✓ Inventory Items - Location of Equipment
- ✓ Check Battery Life - Radios/Lights
- ✓ Expiration Dates on Flares
- ✓ Condition of Flotation Gear - PFDs/Rafts



Survival Equipment

- PFDs, 1 Per Seat
- Dye Marker
- Signal Mirror
- Whistle
- Knife
- "Space" Blanket
- Flares
- Strobe Light
- Smoke Device
- EPIRB/ELT
- 2-Way Radio
- Raft



Passenger Briefing

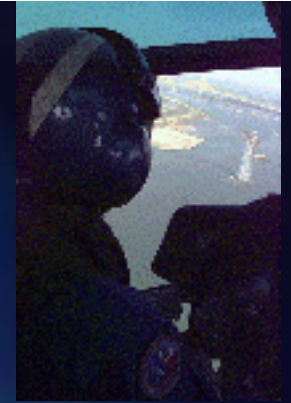
- 📖 Operation Of Aircraft Exits & Seat Belts
- 📖 Location of Survival Equipment
- 📖 Use of Personal Flotation Devices (PFDs)
- 📖 Emergency Alerting Signals
- 📖 Required Actions In Case of Ditching
- 📖 Emergency Egress Procedures
- 📖 After Egress Plan

Flight Planning



- ✎ File an FAA Flight Plan
- ✎ File a "Family" Flight Plan
 - Notify Two Family Members/Friends
 - Instruct Them On Overdue Procedures
 - Brief Them On Special Equipment/Situations
- ✎ Update "Both" Flight Plans As Necessary
- ✎ Close "Both" Flight Plans

Offshore Operations



- “Flight Beyond Gliding Distance From Shore”
- 1,000 ft to Surface = 1 Minute Average
- Single Engine = Within 25 Miles Of Shore
- Multi-Engine = Up To 50 Miles Of Shore
- PFDs For All & Raft With Room For All
- At Least 1 Portable EPIRB/ELT or Radio

Ditching Procedures



- Have a Ditching Plan
- Recognize The Emergency EARLY
- Use a Ditching Checklist
- PRACTICE Ditching Procedures
 - On the ground (1 minute drill)
 - At altitude (1,000 foot drill)

Ditching Checklist

- ✓ Best Angle Of Glide
- ✓ Turn INTO Wind
- ✓ Attempt Restart
- ✓ Transponder 7700
- ✓ Transmit MAYDAY
- ✓ ELT On
- ✓ Ignition & Master OFF
- ✓ Seat Belts TIGHT
- ✓ Doors UNLOCKED & AJAR
- ✓ Secure Loose Items
-or-
- ✓ Jettison Loose Items
- ✓ Touchdown NOSE HIGH & Minimum Airspeed

Touchdown on Crest/Backside Of Swells

- ✈ Wind < 15 KTS
 - Touchdown Parallel With Swells
- ✈ Wind > 15, < 30 KTS
 - Touchdown 1/2 Way Between Swells & Wind
- ✈ Wind > 30 KTS
 - Touchdown Into The Wind

Splashdown And Egress

■ Shock

- Physiological
- Psychological

■ Injuries

- Types
- Prevention

■ Egress

- **Seven Step Method**



7 Steps to Underwater Egress

- 1. Establish good reference point
- 2. Remove everything, except seat belt
- 3. Open Exits, doors, windows
- 4. Reestablish reference point
- 5. Take deep breaths often as possible
- 6. Stop everything, count 5-8 seconds
- 7. Hand-over-hand egress method!

Survival In The Water

☺ Flotation

☹ First Aid

☠ Hypothermia

☠ Predator Fish

✳ Signaling

— EPIRB/ELT

— Mirror

— Strobe

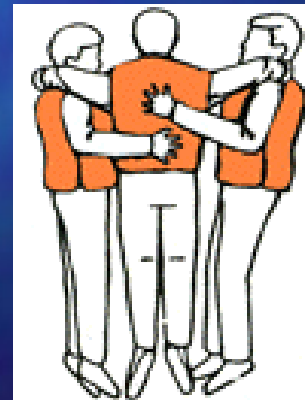
— Flares

— Dye Marker



Hypothermia

- ☹️ Body Core Temperature
- ☠️ Body Heat Loss
- 😊 Heat Loss Prevention
 - “HELP” Method
 - Heat Escape Lessening Posture
 - Huddle Method



Survival Swimming

- Familiarity With Water Environment
- Treading Water
- Drownproofing



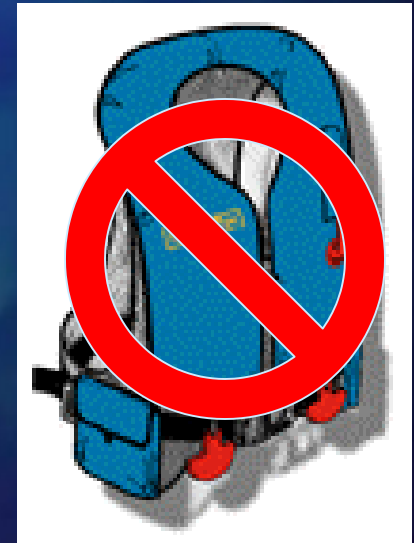
Familiarity With Water

- Learn to Swim
- Learn to Relax In The Water
- PRACTICE



Treading Water

- Lean Slightly Forward, Keep Most of The Body Immersed
- Use a Modified "Frog" Kick
- Scull With Hands Planed



Drownproofing

- Conserves Energy & Helps Stay Afloat
- Place Most of The Body Underwater
- Bend Slightly At Waist, Chin on Chest, Arms on Surface
- Lift Head to Exhale, Inhale, And Return To Rest Position
- AVOID in Hypothermia Conditions

Rescue



- ✓ Stay Calm, DON'T Panic
- ✓ Get In Raft, Stay TOGETHER
- ✓ Average Military Rescue Time = 4 Hours
- ✓ Once In Raft Fire ONE Flare, Save Others
- ✓ Most Victims Die JUST as Rescuers Arrive - **DON'T GIVE UP!!**

Helicopter Pick-Up



- ↑ Once Visually Sighted, Use Flare, Smoke Or Mirror
- ↘ Prepare For Strong Rotor Downdrafts
- ✓ Do EXACTLY What The Rescue-Swimmer Says!
- ⊘ Do NOT Try To "Assist" The Rescue-Swimmer



Thank You Very Much

www.uscg.mil/d8/airstahouston/auxiliary

"A safe flight, is no accident!"



