

# Landing Zone Commander

A MedFlight Training Opportunity

REVISED 3/1/2010

# Landing Zone Training

## Topics

- **Choosing Landing Site**
- **Obstructions**
- **Surface**
- **Safety Around LZ**
- **Safety Around Helicopter**
- **Communication**
- **Approach/Departure Phases**
- **Night Operations**

# SAFETY IS NOT AN ACCIDENT

Although landing a Helicopter at an emergency scene may appear routine it is easily one of the more hazardous maneuvers that we do. Statistically, people have and will continue to be injured during this phase of flight. Our goal, with your help, is to continue our safety record at MedFlight

# **CHOOSING A LANDING ZONE**

- **Close but not at the expense of safety.**
- **Land and take off into the wind.**
- **Helicopter should land downwind of patient care area.**
- **The LZ should be far enough away from the patient as to not blow sand or debris on to them.**

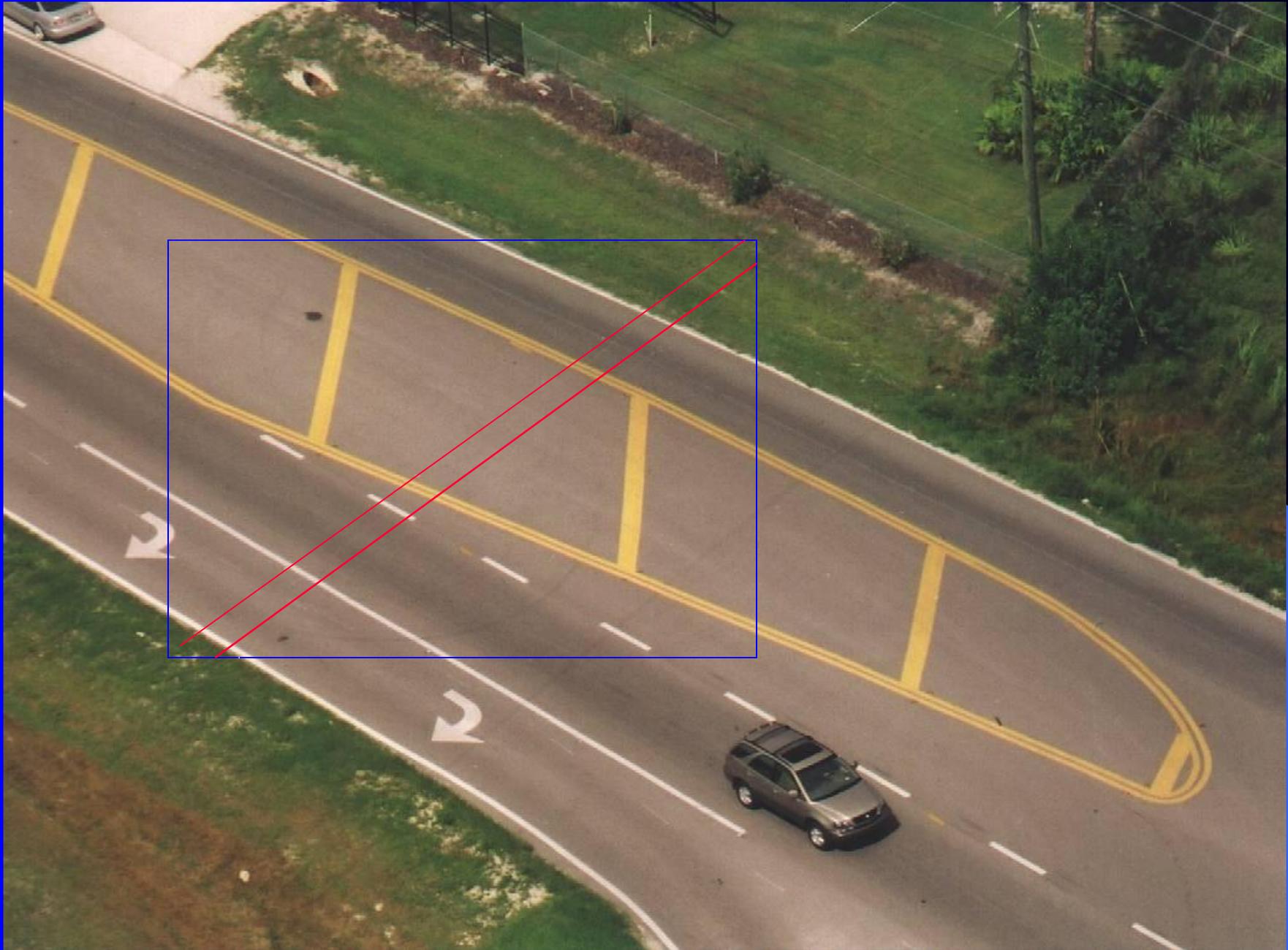
# OBSTRUCTIONS

- **Wires**
- **Trees**
- **Light Poles**
- **Buildings**
- **Vehicles**
- **Tree Stumps**
- **Rocks**
- **Construction Debris**

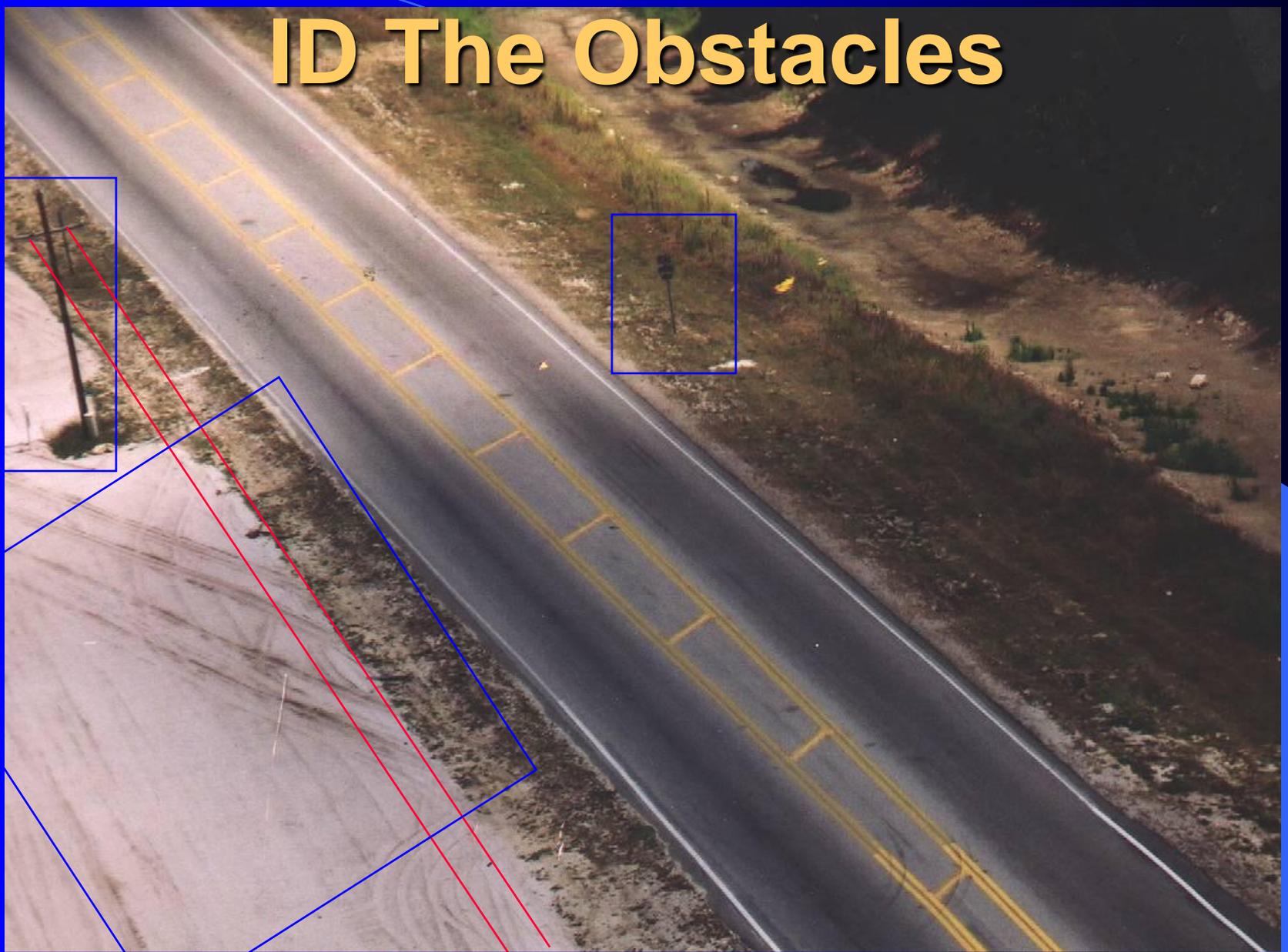
# WIRES

- **NEARLY INVISIBLE FROM THE SKY**
- **LOOK FOR WIRES CROSSING THE L.Z.**
- **VISUALLY CONFIRM THE DIRECTION OF WIRES COMING OFF EVERY POLE IN THE AREA.**





# ID The Obstacles



# **SURFACE & AREA**

- **Landing surface should be a hard surface or grassy**
- **Avoid sandy dusty areas (unless you can wet the surface before arrival)**
- **Should be relatively level – Minimal slope**
- **Clear area**
  - **Clear of debris**
  - **Large rocks**
  - **Posts & Signs**
  - **Stumps**
  - **Vehicles**
  - **People**
  - **Animals**
  - **Hazards**

# **SURFACE TYPES**

- **BEST - CONCRETE**
- **SECOND - BLACKTOP**
- **THIRD - SOD or GRASS**
- **FOURTH - COMPACTED EARTH  
lightly moistened**
- **LAST CHOICE IS DIRT OR BRUSH  
AREA**

# SET-UP

- Set markers (5) on the four corners and 1 marker on the upwind side of the landing area
- Always keep the landing area clear of people/vehicles
- Do not point spot lights at the cockpit of the aircraft
- 100x100 is ideal
- 80x80 is minimum



# SLOPES

Incorrect



Correct

# CAUTION

- **ROTOR DOWNWASH CAN BLOW DIRT, DEBRIS, AND GRAVEL WITH ENOUGH FORCE TO CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.**
- **EYE PROTECTION IS ESSENTIAL**

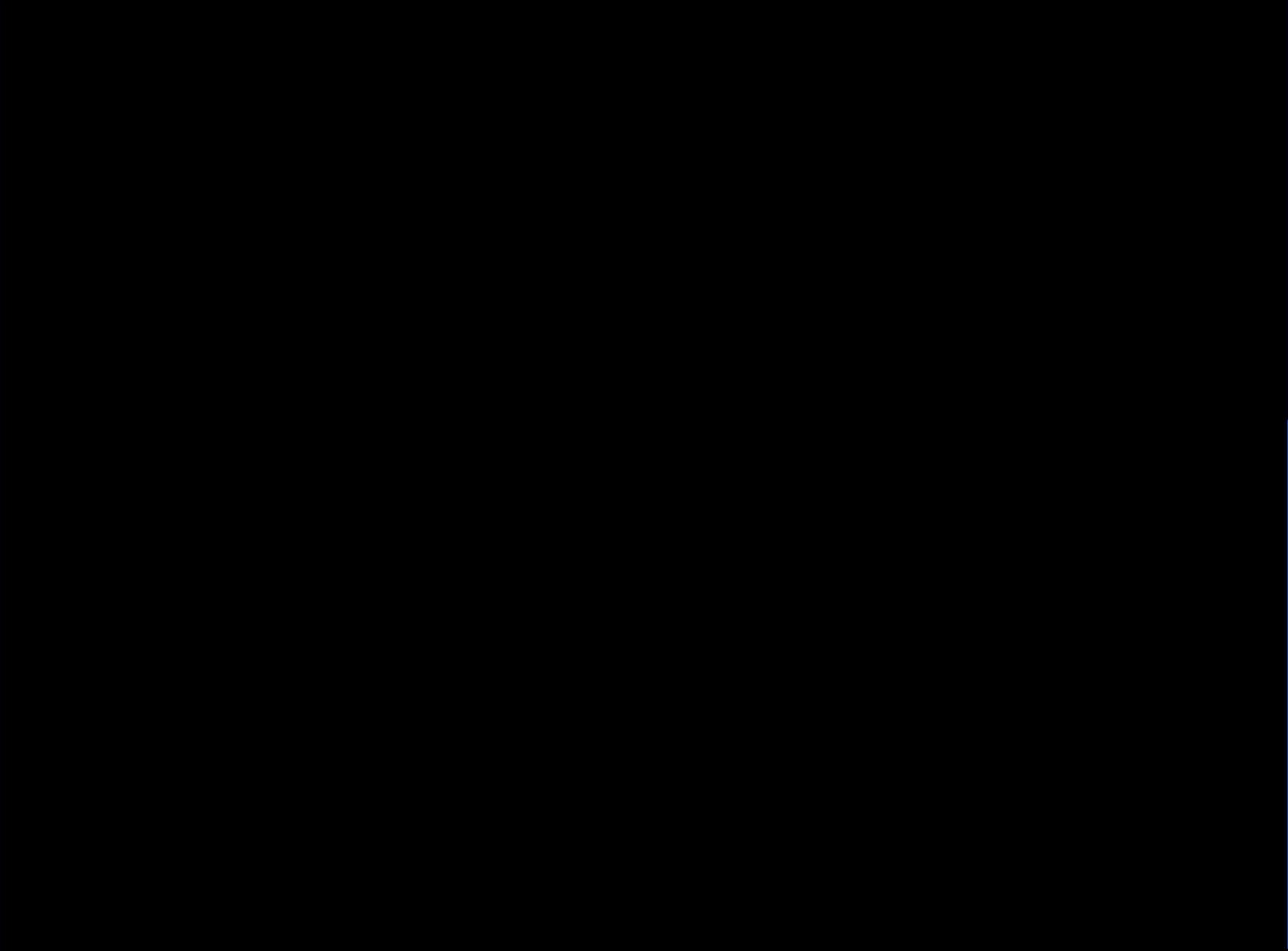
# CAUTION

- **DRY AREAS PRESENT A POTENTIAL HAZARD FOR "BROWN OUT." A CONDITION WHICH SEVERELY RESTRICTS VISIBILITY DURING THE CRITICAL LANDING PHASE OF FLIGHT DUE TO BLOWING DUST.**

# BROWNOUT



# BROWNOUT



# APPROACH AND DEPARTURE PATHS

- Obstacles and patient treatment area
- Wind speed and direction

# LANDING PHASE

- **Maintain radio contact with the helicopter.**
- **Maintain LZ security.**
- **In case of an unexpected hazard communicate immediately**
  - **“ABORT LANDING ABORT LANDING”**

# SPECIAL NOTE

Be prepared for an alternate LZ should the pilot choose not to accept the first choice. Because another pilot landed at this location prior does not necessarily make it acceptable to all pilots and aircraft or this time. Many factors may affect an LZ that may not be known to you on the ground.

# GROUND OPERATIONS

- Never approach aircraft unless requested by AMP
- Do not take patients to AMP let them come to you.
- Never approach the tail rotor
- Never open or close any door to the helicopter

# CAUTION



## Tail Rotor/Fenestron

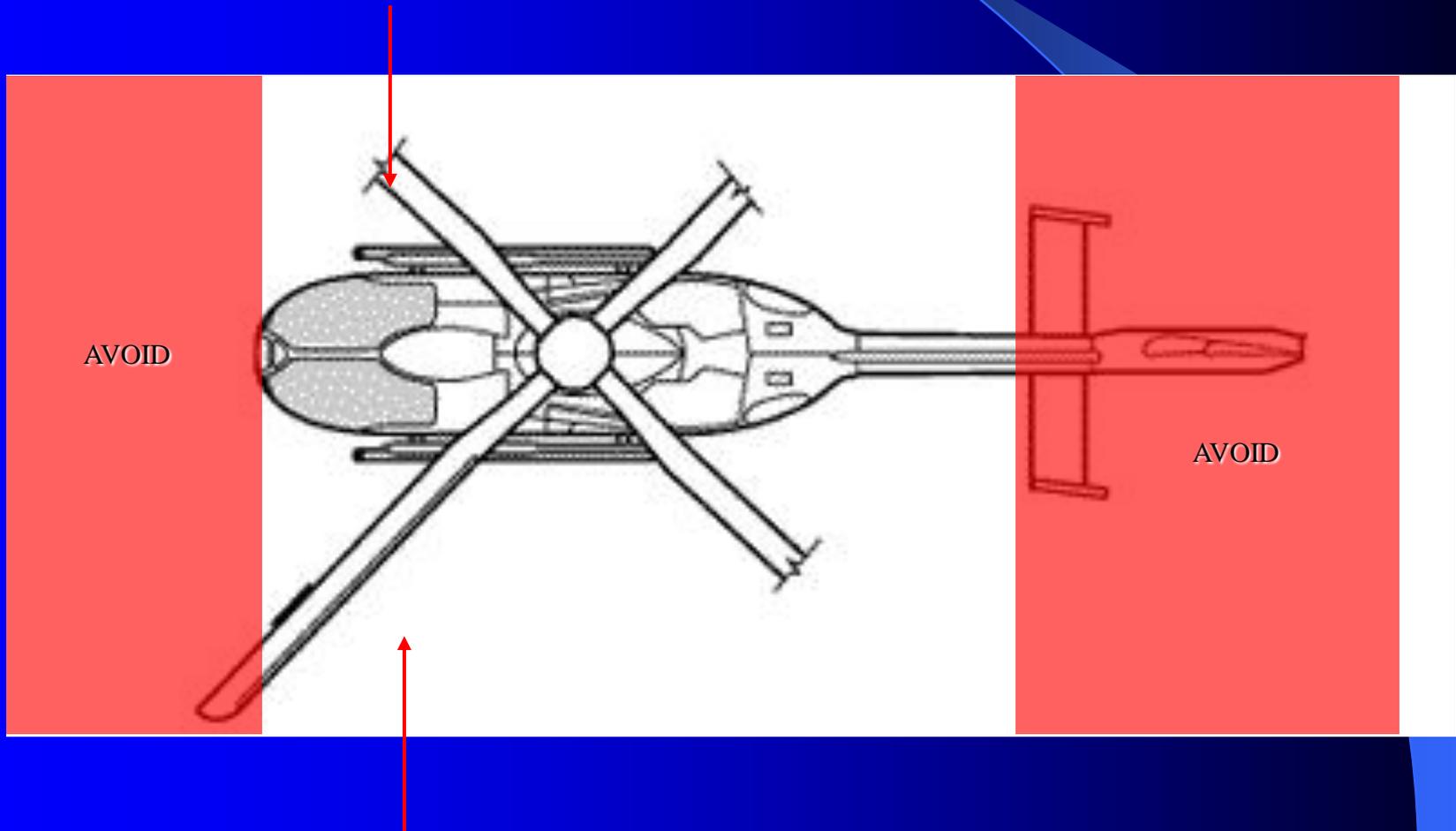
Extremely dangerous. When in operation the blades are invisible. Loose items can be sucked into the blades

# CAUTION

Operations in and around the aircraft are conducted under stressful and noisy conditions, approaching the aircraft without specific instruction Is **NOT** permissible.

# CAUTION

- If you are directed to approach the aircraft only approach from the sides



# DEPARTURE

- The pilot will signal prior to takeoff
- LZ Commander should move to front of AC
- Maintain radio contact as helicopter lifts off.
- If you observe a safety concern communicate “ABORT TakeOff ABORT TakeOff”

# NIGHT OPERATIONS



# NIGHT OPERATIONS

- LZ should be clearly identified by strobe lights or ground vehicles
- Spotlights should be used as a last resort to avoid blinding the pilot
- Clearly mark and/or discuss hazards with pilot prior to landing

# GENERAL SAFETY RULES

- Never approach or allow anyone to approach the aircraft.
- No smoking or open flame within 100 feet
- No hats or unsecured articles
- Never run or hurry
- No vehicle movement near aircraft
- Keep your head/eyes up
- Notify pilot if something is wrong

# COMMUNICATION

- **BRIEF THE PILOT/CREW ON THE FOLLOWING**
  - **LZ location. (LAT/LON degrees & minutes)**
  - **Wind speed & direction.**
  - **Size of the LZ.**
  - **Type of landing surface.**
  - **Obstacles and hazards within 1/8 mile (200 yards)**

# Thank You



## Questions? Comments?