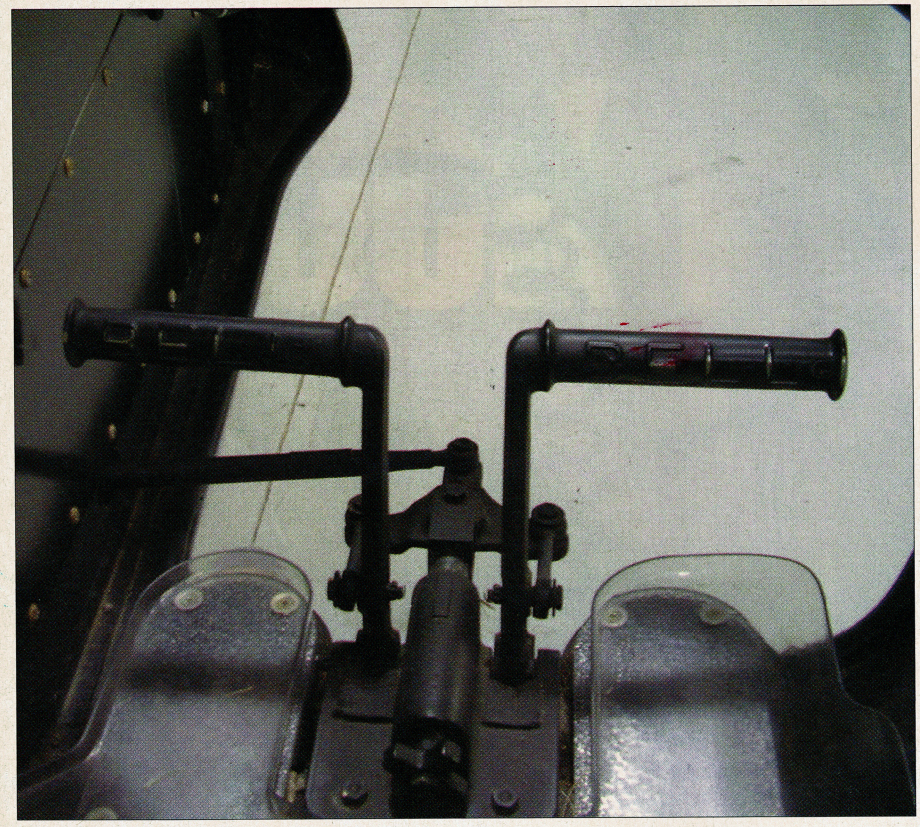

Stuck Left Pedal

This may happen or first be noticed during takeoff, or during and at the end of power transition, for example you are flying at 1000 AGL and want to climb to 2000 AGL, you will increase the collective and maintain the ball in center by applying some pressure to the left pedals (in most western helicopters, in the other rotation type reverse the procedure), when you get close to your desired altitude you will ease the collective down and will reduce the left pedal in order to keep the ball in center, if you notice that either you cannot push the Right pedal (they are jammed) or they move but the helicopters nose is still to the left and by decreasing the collective the nose moves further to the left, then you know you may have a stuck left pedal, to verify this you will push right pedal and if nothing happens then you lower the collective and the nose swings more to the left, you pull the collective and the nose comes to the center, by doing so, you have verified that you have a stuck left pedal.

Procedure for Stuck Left Pedal

Upon first indications of this emergency, if you have complied with the 5 cardinal rules applicable to almost any emergencies mentioned above, continue at your Va (maneuvering speed) or the best Autorotation speed for that helicopter to the nearest airport with the hard surface runway or hopefully multiple runways.

Select a runway with headwind, if not possible then at least select a runway with LEFT CROSS WIND only.

Refrain from any rapid movement of any controls , recall your Vt/r, do not let the helicopter get slower than this number all the way to the ground, select a longer final for a shallow approach (max 5 degree angle), one of the characters of this failure is that it is harsh in final but it is easier at the very end, in the other hand while you are at relatively lower power setting in final and short final the helicopter is in a left yaw and you are approaching the runway sideward.

Approximately one foot above the runway, slowly apply the power (raising the collective) the nose of helicopter will move to the right and become lined up with the runway; by the time the nose is straight you should be touching down and still have maintained your Vt/r. As soon as you touch down, being smooth with the collective very slowly push it down, the friction will help you to stop relatively quickly, however the nose may turn to the left and the helicopter may slide sideway, as long as there are no obstacle on the runway to cause a pivoting point (for dynamic rollover) then you are OK but make sure to keep the helicopter flat, level and neutrally cyclic or in the case of cross wind slightly into the wind.

After the helicopter comes to a complete stop, shut down and secure the helicopter and leave it to the maintenance crew to investigate and repair, DO NO FLY IT off the runway or to a hangar, even though you have caused an active runway to be closed.

Common Mistakes

1- Approach angle of more than 5 degree (Steeper approach angle).
2- Failure to maintaining the Vt/r all the way to the ground
3- Increasing the collective too early
4- Upon touch down not maintaining a flat disc 90 degrees to the mast.
5- Rough and jerky on the controls.

Stuck Right Pedal.

Generally happens or noticeable during descent or power applications after a descent, for example you are at 2000AGL and decided to go down to 1000 AGL in preparations for landing. When you reached 1000AGL and pull the collective to stop the descent and ease on the right pedal, you will notice that when you increase the power and apply the left pedal, the nose continues to yaw to the right and the left pedal is either jammed or it moves but not correctly and you are still yawing to the right. To verify the problem you will increase the collective and observe that the nose goes to the right and when you reduce the collective, the nose yaws back to the left. This verifies that you have stuck right pedal.

Procedure for Stuck Right Pedals

Again, smooth and gentle with the controls, attempt a shallow approach, if cross winds are present, select the runway with RIGHT CROSS WIND ONLY . The premise of this maneuver is that the ending is very nice and the helicopter will not