

SKIDS AND WHEELS COMPARISON

#	Description	Skids	Wheels
1	Drag	A set of skids hanging out in the air stream all the time cause drag. This both slows the helicopter down and increases fuel consumption.	A helicopter with retractable wheels offers a 'clean' profile
2	Ground Handling	If a helicopter is to be moved on skids a special set of 'dolly wheels' are required and must be specifically fitted for this. The helicopter must be 'manhandled' to its location in the hanger or anywhere else it has to be moved to. It is also unable to ground taxi in a confined area. (On the apron at an airport) It has to hover taxi causing a strong downwash of air and the consequent potential blowing over or damage to surroundings.	On wheels the helicopter is simply pushed or pulled with a small tug to wherever it is required. If required, the helicopter on wheels can ground taxi with very little down wash of air within a confined area.
3	Emergency Training	Single engine reject landings require the helicopter to be skidded onto the runway damaging both the skid strips and the runway.	The helicopter is run onto the runway and brought to a stop gently with brakes.
4	Deck Landings	These offer very little traction on ships sloping decks. The possibility of slipping is always very real. The possibility of landing on small deck protrusions is always there. (Especially at night) This does cause expensive damage to the skids. Slipping on deck causes scratching	Offer very good traction. Small protrusions offer no hazard. No scratching of deck paint. No sea-saw effect sometimes encountered with skids on an uneven deck welds.

ANNEXURE “A”

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		of the deck paint. This has to be repaired before rust starts. A nuisance for the ship.	
5	Centre of Gravity and Hoist Location	Because the skids protrude some distance from the side of the helicopter this means anybody being hoisted must be hoisted outside of the skids. This is some distance from the centerline of the helicopter. This in turn causes a large lateral center of gravity moment tending to reduce the disposable load on the hoist. Some light French helicopters overcome this problem of lateral moment and direction of rotation of the main rotor system by fitting the hoist on the opposite side of the helicopter to the helicopter pilot. (A most unsatisfactory arrangement for ship service activity)	No obstructions are offered by wheels. The marine pilot is hoisted up/down close to the door. Does not have to be pulled in. There are few center of gravity limitations and the hoist is fitted on the same side as the helicopter pilot. (Note. This is a very important consideration)