

# NOTICE TO AERODROME LICENCE HOLDERS

Aerodrome Standards Department, Aviation House, Gatwick Airport South, West Sussex RH6 0YR

1/93

## HELICOPTER WAKE VORTEX

### INTRODUCTION

- 1 During a busy Sunday afternoon at Kidlington Airport when helicopters were in use transferring passengers to and from the Silverstone race circuit, a light aircraft (PA-28) was making an approach for a touch and go shortly after a Sikorsky S-61N helicopter had landed and commenced a left turn to hover-taxi clear of the runway. At a height of about 30 feet agl the PA-28 initiated a go around and as the nose of the aircraft was raised and gentle right bank applied, the aircraft was observed to flick suddenly to the right to approximately 90° bank and descend to the ground following a nose drop. Both pilots received fatal injuries. The S-61N commander reported that the helicopter was heavy and that he needed to use high engine power to hover-taxi.
- 2 The Air Accident Investigation Branch of the Department of Transport carried out an investigation into the accident and found that inter alia.
  - (a) At a late stage in the approach the PA 28 encountered wake vortices or turbulence generated by the S-61N helicopter which at the time of the accident was hover-taxiing close to the active runway.
  - (b) The pilots of the PA 28 were probably unaware that the S-61N was carrying out a manoeuvre that required the use of high engine power with consequent strong down wash.
  - (c) There is insufficient knowledge concerning the hazards to flight safety caused by hovering helicopters near active runways.

### PURPOSE

- 3 The purpose of this NOTAL is to draw the attention of airport operators to the Department of Transport Aircraft Accident Report 1/93 which recommends inter alia that the CAA should draw the attention of aerodrome operators to the potential hazards associated with the atmospheric disturbance generated by heavy helicopters whilst hover-taxiing.

### SCOPE

- 4 Information and advice on the effect of wake turbulence are currently available in the following documents:
  - (a) Aeronautical Information Circular 122/1992 (Pink 61)
  - (b) MATS Part 1

- (c) GASIL 9/92 Item 9 'Hazards of Rotor Downwash'  
3/93 Item 12 'Wake Turbulence'
- (d) General Aviation Safety Sense Leaflet No. 15 'Wake Turbulence'

**IMPLEMENTATION**

- 5 Aerodrome Operators should review the source documents quoted above and ensure that due allowance for the hazards described is incorporated in any wake turbulence separation procedures used at the aerodrome.

**QUERIES**

- 6 Any queries raised as a result of the information contained in this NOTAL should be addressed in the first instance to ASI, 2W Aviation House, Gatwick Airport South, West Sussex RH16 0YR tel (01293) 573254.