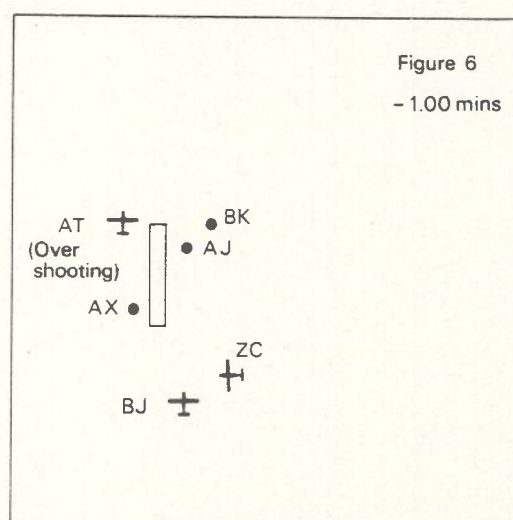
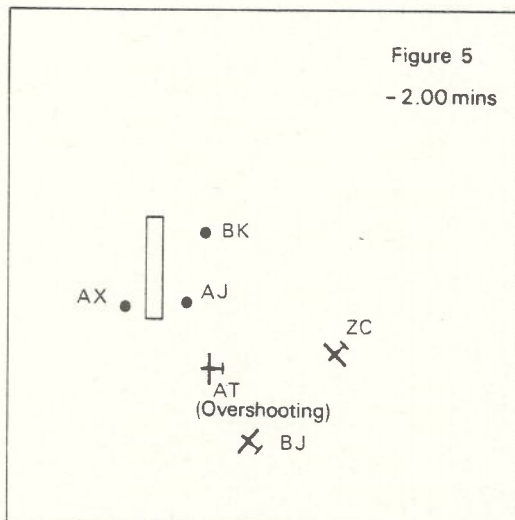
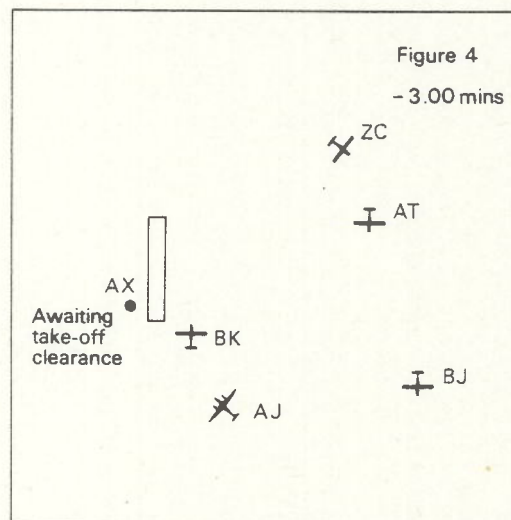
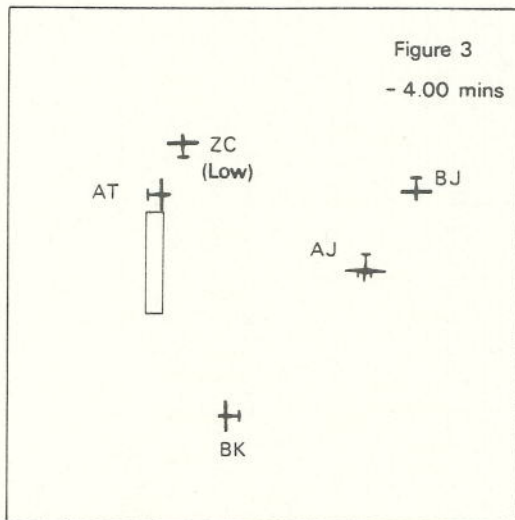
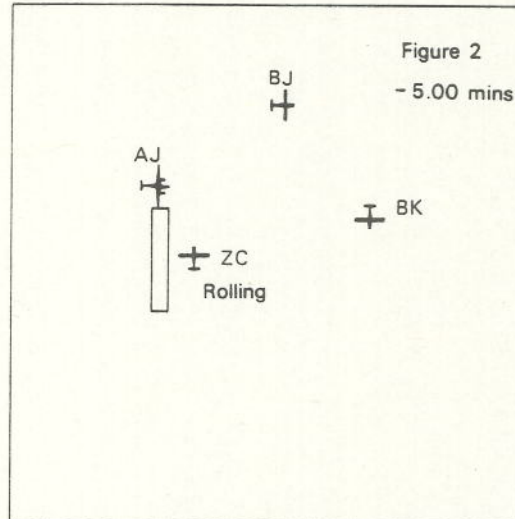
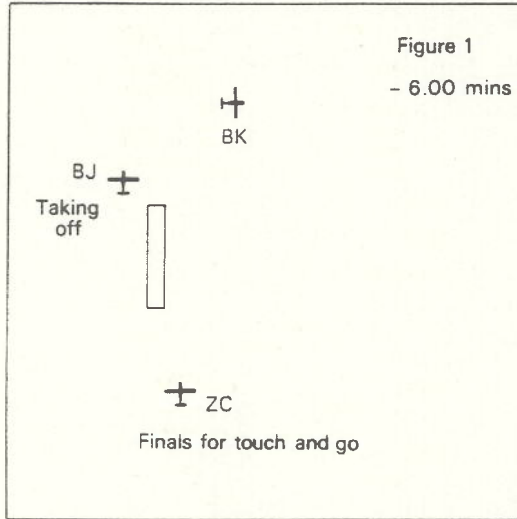


# Hamble 30 April 1981 Circuit Schematic

## Estimated disposition of aircraft in the circuit prior to the mid-air collision

(not to scale)

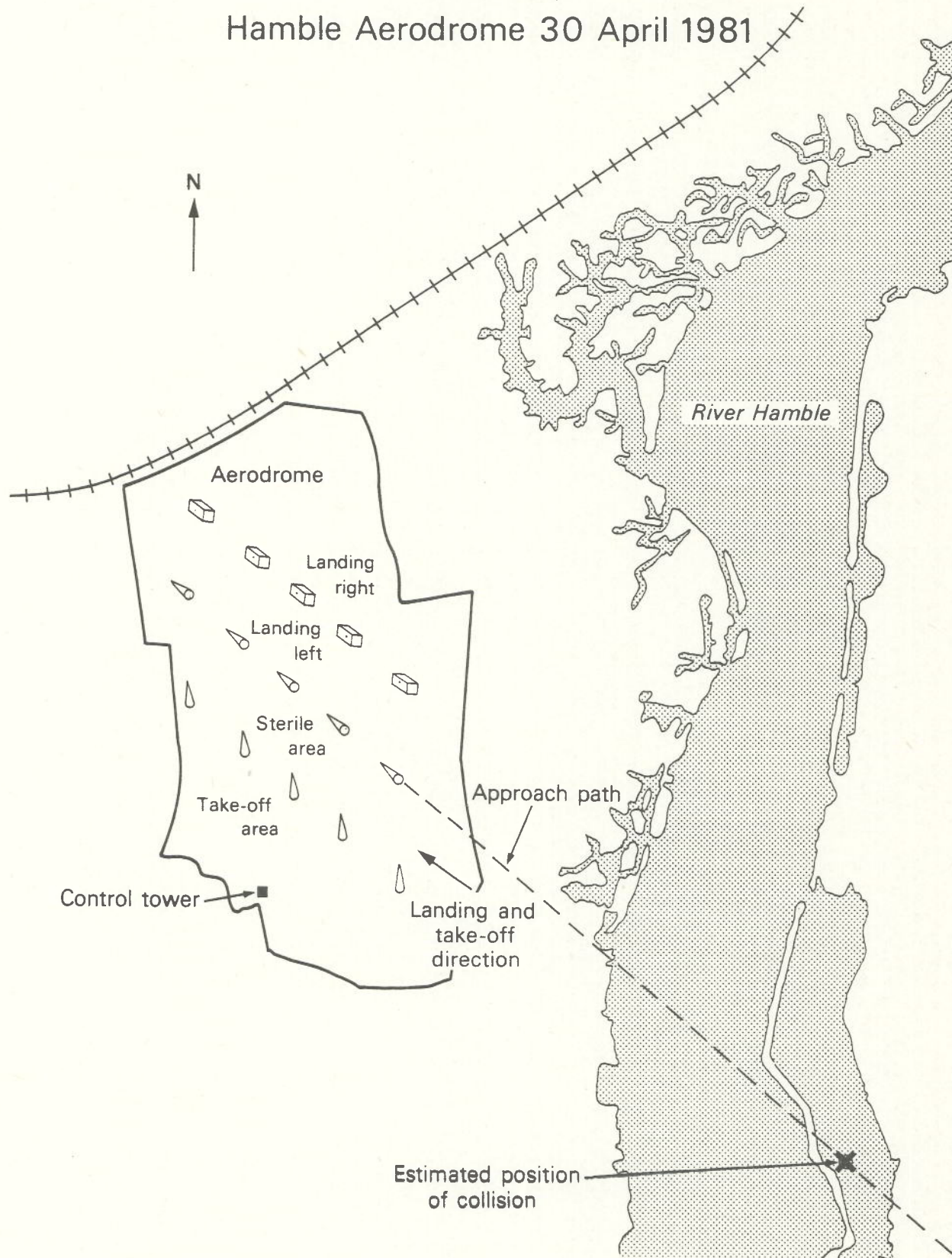


- ✈ Aircraft in the air
- Aircraft on the ground

# Schematic of Take-off and Landing Runs Runway 32

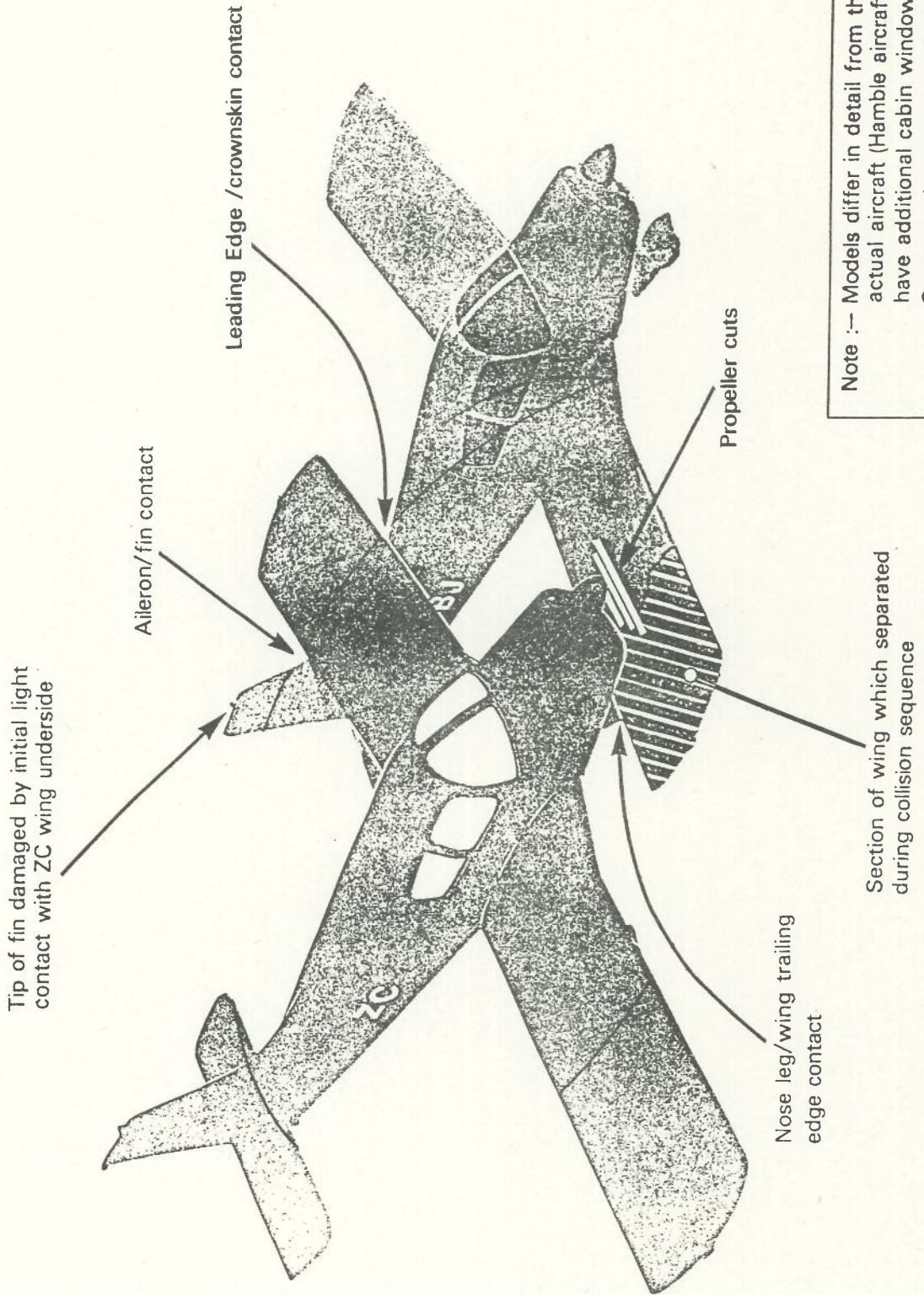
(not to scale)

## Hamble Aerodrome 30 April 1981





### Model Representation showing Collision Contact Points



Note :- Models differ in detail from the actual aircraft (Hambie aircraft have additional cabin windows). Contact points are representative.

## Civil Aviation Authority

AERONAUTICAL INFORMATION CIRCULAR 13/1981  
3 FEBRUARY

## LIMITATIONS IN THE FIELD OF VISION FROM LIGHT AIRCRAFT COCKPITS

1. An inquiry into a fatal mid-air collision between two light aircraft, one climbing away after overshooting and the other joining the aerodrome circuit for landing, concluded that one of the causal factors of the accident was that the pilot of the joining aircraft had a restricted field of vision to the right when flying from the left-hand seat. The aerodrome circuit was right-handed.
2. The collision occurred in daylight and in fair weather with no flight visibility problems. Both aircraft were in contact with the aerodromes AFIS (a service as defined in the UK AIP—RAC Section 3-2-5). Such a service is not responsible for the maintenance of separation between aircraft in the circuit.
3. The field of vision from all aircraft cockpits is restricted by structural features such as mainplanes, engines, nose fairings, cockpit coamings and overhead panels or roofs. The most commonly found 'blind spots' are underneath the nose, above or below the wings and to the rear immediately behind the pilot. Some of the deficiencies in the field of vision may be minimised by movements of the pilot's head but others can be overcome only by banking or turning the aircraft.
4. The collision risk is obviously higher in areas of concentrated air activity, for example, in the vicinity of aerodromes, close to navigational beacons, along access lanes and light aircraft corridors, over prominent features and landmarks etc when the need for vigilance will be correspondingly greater. In such areas it is essential to carry out systematic scanning and to compensate as far as possible for known 'blind spots' by periodic banking or turning.
5. When following features such as roads, railways and coastlines it is essential to minimise the risk of collision with other aircraft navigating by means of the same landmarks, but flying in the opposite direction, by observing the Right Hand Traffic Rule (Rule 19 of the Rules of the Air and Air Traffic Control Regulations). This Rule requires an aircraft to be flown so that the landmarks are kept on its left-hand side.
6. Effective vision may be reduced through external factors such as flight visibility, sun-dazzle and rain and even in good visibility conditions the conspicuity of an aircraft may vary depending on the background against which it is viewed. Vigilance is therefore necessary in all flight conditions and in this connection it is particularly important to ensure prior to flight that windscreens and side-panels are clean. Pilots should also make themselves familiar with the operation of equipment such as windscreen wipers and demisters where available.
7. When flying an aircraft equipped with RTF, advantage should be taken of any air traffic service which can provide information on the proximity of other aircraft. RTF transmissions from other aircraft can also be intercepted and help to serve the same purpose.



8. Circuit Procedures: It is normal practice for light aircraft to descend on the 'dead' side of the active runway when joining the aerodrome circuit. When following this procedure the aircraft should be flown sufficiently wide of the runway to enable a clear view to be had of aircraft using it. A particular look-out should be kept for aircraft making 'touch and go' landings or carrying out missed approach procedures.
9. In assessing the point at the upwind end of the runway at which to initiate the crosswind turn, allowance should be made for the flight path of aircraft taking-off or overshooting, in order to avoid a potential conflict. This assessment will need to take into account wind conditions, runway length available and the type(s) of aircraft involved. It cannot be assumed that a standard crosswind turn at the upwind boundary at circuit height will in all cases provide adequate clearance over aircraft taking off or overshooting.
10. On the final approach it is especially important to keep a lookout for aircraft which may be above or below and as stated previously it may be necessary to manoeuvre the aircraft in order to ensure the maximum possible field of vision. If there is any danger of a collision with another aircraft an overshoot should immediately be carried out.
11. Light aircraft pilots with RTF available to them should bear in mind that non-radio aircraft may be joining, or in, the circuit. They should therefore not regard RTF transmissions as an infallible guide to the actual position of individual aircraft or as a positive indication of the total number of aircraft in the vicinity.
12. When right-hand circuits are being flown solo from the left-hand seat particular caution is called for because of the restriction in the field of vision to the right already referred to.
13. Circuit Discipline: The limitations in the field of vision from light aircraft cockpits discussed above underline the need for a high degree of discipline in the aerodrome circuit. In particular pilots should:
  - (i) be fully conversant with the circuit procedure in force, if necessary confirming by RTF or the signals square the runway and circuit direction in use;
  - (ii) avoid 'bunching' by positioning themselves correctly and by utilising the effective speed-range of their aircraft;
  - (iii) resist the temptation to 'cut in' in order to secure a more favourable place in the landing order;
  - (iv) overshoot early if in any doubt about the position of an aircraft ahead on 'finals' and which has been lost from sight, or if baulked by an aircraft already on the runway, either landing or taking-off;
  - (v) avoid the assumption that the other person is aware of a potential collision risk and will take avoiding action.
14. Anti-collision Lights: An anti-collision light, if fitted, should be used wherever there is a likelihood of a conflict with other traffic and in restricted visibility conditions.