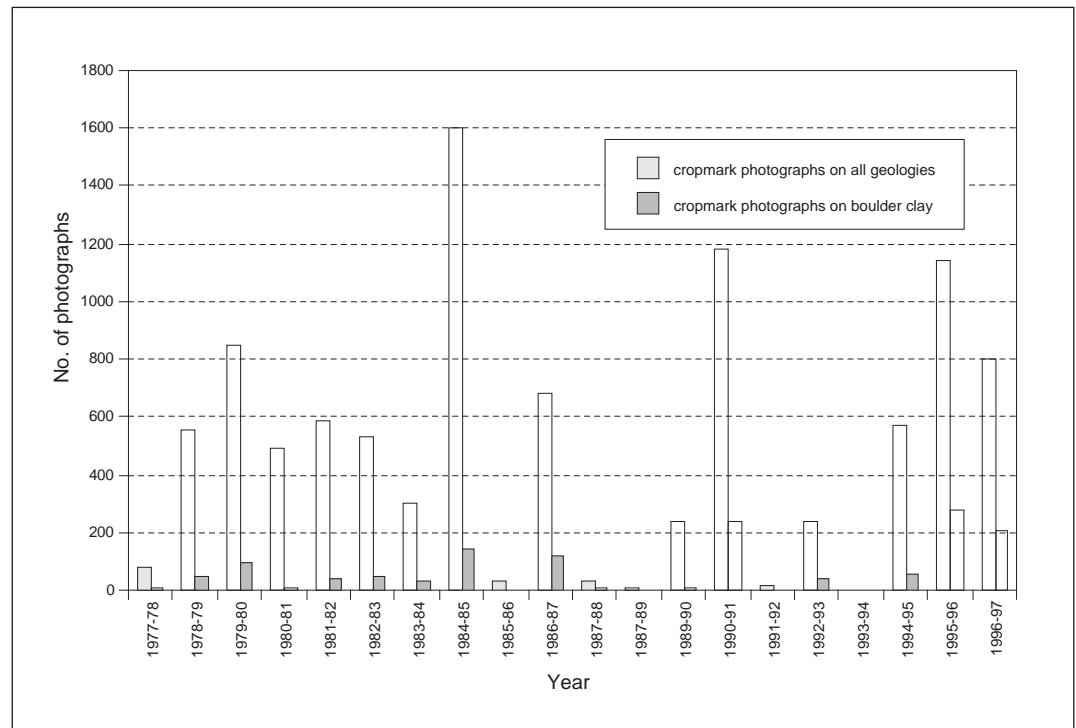


*Fig 2.14  
Number of NCC cropmark photographs taken on boulder clay relative to NCC cropmark photographs taken on all geologies.*



resource. Mainly on boulder clay in Whittlewood-Salcey Forest and especially Rockingham Forest, exceptional evidence was recorded in the early 1980s through systematic recon-naissance (Fig 2.15). These settlement and field system remains complement the cropmark results on boulder clay, especially along the Nene-Ouse watershed, achieved in exceptional cropmark years. But in the forest areas these sites had survived as earthworks until the 20th century and were, at the time of photography, undergoing rapid destruction by ploughing. At the time, it proved impossible to persuade English Heritage to respond to this destruction with a campaign of scheduling. This reconnaissance also yielded extensive, national, and at least at that time, rare aerial evidence of the medieval charcoal industry, which supplied the iron furnaces of medieval Northamptonshire.

Other formerly wooded areas in the county were also examined for such soilmarks, but all that was identified was a small area on the eastern edge of Salcey Forest to the south of Bozeat. Several other flights were conducted to check the Forest of Arden and Rutland Forest, particularly for charcoal burning evidence, but none was found.

The actual reconnaissance in any year did not necessarily match the objectives

laid out in the grant applications for that year, set down to meet the requirements of the funding body, because developing conditions often demanded a revision of priorities. It is also clear, with hindsight, that some themes were not afforded the priority that was appropriate, although to a considerable degree such omissions were the results of a conscious decision to target the available resources to the most productive evidence.

Ridge and furrow in particular were ubiquitous in 1977, and so were largely ignored for much of the reconnaissance period. However, by the early 1990s the rate of loss was enormous. On the log for 17 July 1992, a flight made for ridge and furrow survival recording, it is stated: 'Extensive areas of arable now exist even where ridge and furrow was extensive 10-15 years ago. Most of the county [has] just occasional fields and some [of these are] not [of] good quality due to one or two modern ploughings. Very few distinctive areas of extensive ridge and furrow [now remain].' In response to this situation some limited recording was begun and a report commissioned from Hall to quantify the loss.

This work, however, was too late to enable effective recording action for most areas of the county. (Hall 1993). With hindsight, having now assessed a large

sample of the 1940s RAF verticals as a record of ridge and furrow, this failure to conduct intensive recording in ideal conditions in the mid-1970s can be seen as the major failure of the 20-year campaign of reconnaissance.

Photography, of excavations and of wider historic landscapes, was conducted incidentally as part of the other reconnaissance. Only in the 1990s were a few flights undertaken specifically to record parks and gardens, and ridge and furrow, associated with the initiation of projects to assess their survival and condition. The former related to the work of the Northamptonshire Gardens Trust, while the latter led to an English Heritage-funded project to assess the survival of ridge and furrow. This incorporated a specially commissioned programme of recon-

naissance in 1999 by CUCAP, targeting the best surviving ridge and furrow townships in the Midlands and published by Hall (2001a).

Another specific reconnaissance target was cropmark evidence in the Raunds area, which was more intensively overflown in the early 1980s than any other part of the county, in order to contribute to the Raunds Area Project (Parry 2006). Several flights were also conducted in flood conditions to identify the very slight earthworks of palaeo-channels on the floodplains of the Nene and Ouse, because of their importance as reservoirs of environmental evidence.

Some themes that might have justified more systematic reconnaissance, such as earthwork and standing remains of World War II, were never incorporated into the

*Fig 2.15  
NCC soilmark photographs  
relative to wooded, built  
and quarried land in the  
Rockingham Forest area.*

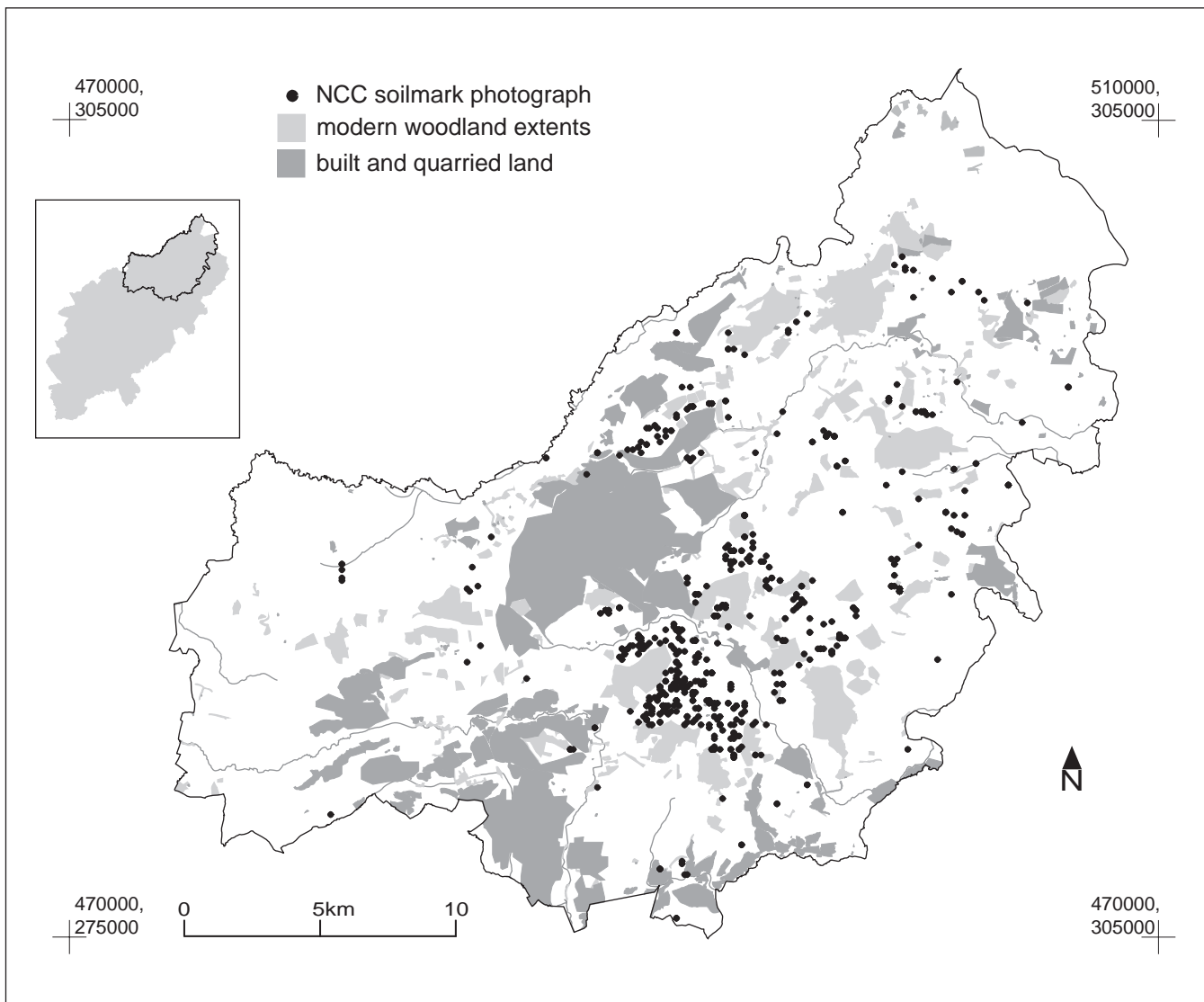


Fig 2.16 (below)  
Distribution of NCC  
cropmark photographs on  
boulder clay in 1984.

Fig 2.17  
(opposite, top left)  
Distribution of NCC  
cropmark photographs on  
boulder clay in 1986.

Fig 2.18  
(opposite, top right)  
Distribution of NCC  
cropmark photographs on  
boulder clay in 1990.

Fig 2.19  
(opposite, bottom left)  
Distribution of NCC  
cropmark photographs on  
boulder clay in 1995.

Fig 2.20  
(opposite, bottom right)  
Distribution of NCC  
cropmark photographs on  
boulder clay in 1996.

flying programme. For these types, only incidental photography was undertaken in the course of other reconnaissance.

From May to August, where practicable and appropriate, and with reference to weather conditions and reports from other aerial archaeologists nationally, flights were conducted to monitor cropmark development. Progress on different geologies was assessed, including examination of sites known to appear in most years. Where a particular geology began to show good cropmark development, that geology was targeted across the county. The generally mixed nature of the geology of the county did, however, ensure overflight of other geological types on a regular basis, hence maintaining a check on progress county-wide. This was essential, as in some years cropmark development varied significantly in different parts of the county, probably mainly in response to thunderstorm tracks. From 1981 to 1993 brief summaries of the developing conditions were made on most flight logs. They provided, together with the crude mapping of the flight paths (not retained), the evidence on which to base the flight paths in the following flights and indeed the timing of those flights. When taken together for a year these give a broad overview of the perception of the photo-grapher as to the nature and location

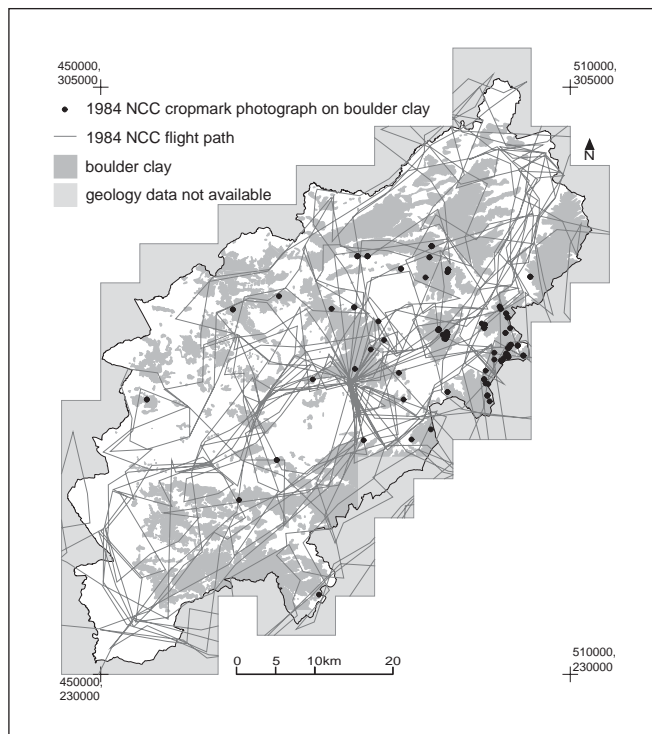
of cropmark development and the way in which conditions appeared to be developing.

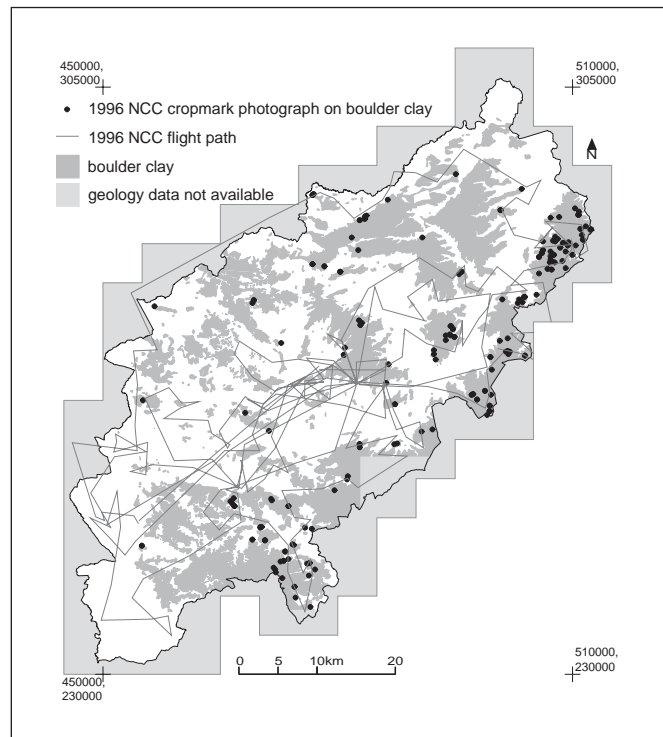
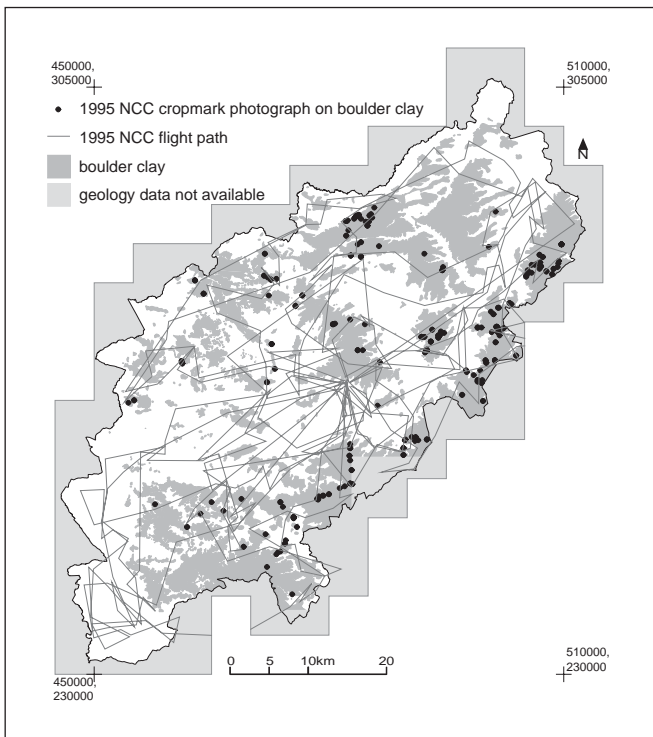
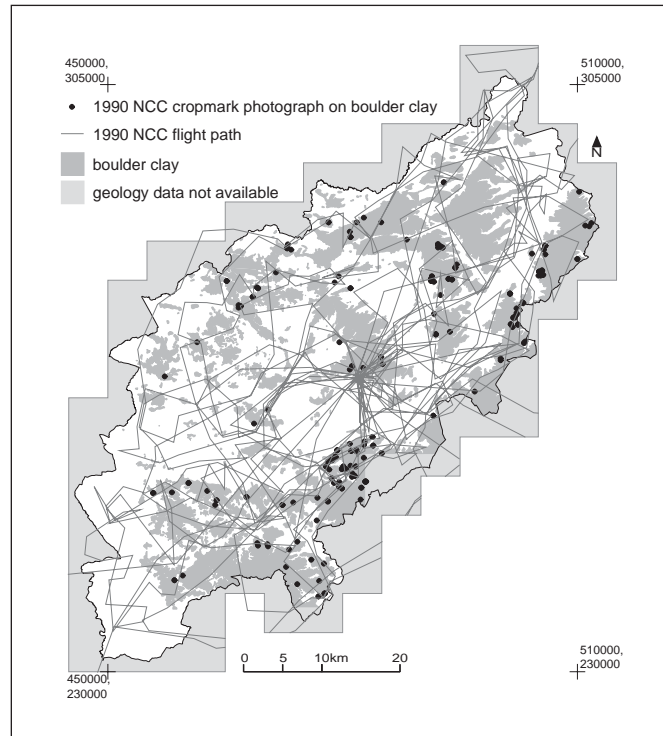
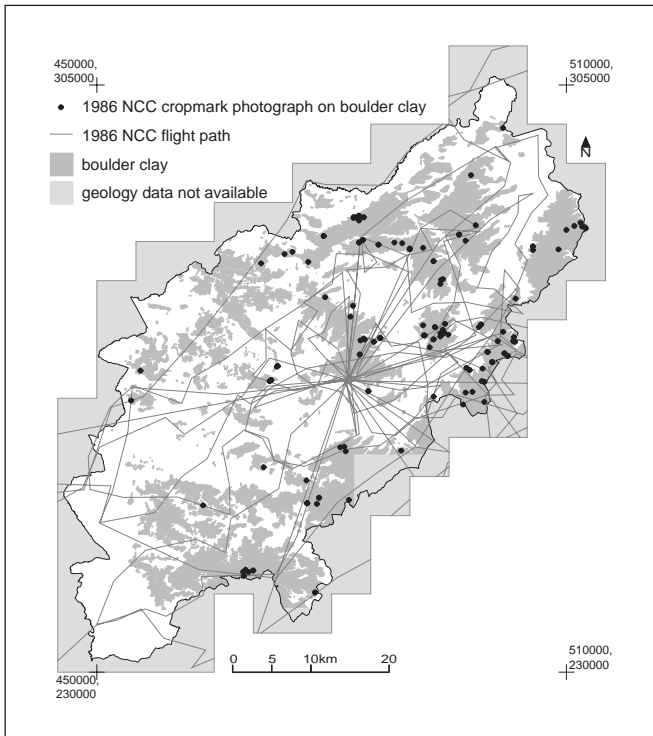
Throughout the 20 years it was the most responsive, permeable geologies that still produced the greatest return, both in number and complexity of new data. In a few exceptional years, typically towards the end of very dry seasons, some of the main 'blank' areas, on boulder clay, began to yield significant results (see Fig 2.14). The clay land that produced the most extensive cropmarks was that between the Nene and the Ouse in Northants and the adjacent areas of north Bedfordshire and west Cambridgeshire (Figs 2.16–20). The reconnaissance programme demonstrated that in most years, and for most of the season, the absence of cropmarks on the clay lands was a result of the lack of cropmark development rather than lack of reconnaissance.

It became clear that flying to fill in gaps in evidence on the less responsive geologies, the 'blank' areas identified in 1980, had to be carefully targeted to short periods in exceptional years. Identifying these key moments – usually no more than a week or two in a handful of years over two decades of flying – was the critical task and one that could only be achieved by maintaining a local reconnaissance programme in all but the worst years. It also seems clear that both the recognition of and the ability to respond to such cases can only be effectively achieved where there is a local flying programme and where the needs and opportunities with regard to the local geology and archaeological record are clearly understood.

By the late 1980s so many sites had been photographed that it was no longer possible to grasp the nature of the resource and its meaning. Crude patterns were recognisable, related to geology, topography and region – as with the apparent planned, rectilinear 'Celtic' landscape of part of the boulder clay between Nene and Ouse – but it was recognised that only through a programme of systematic plotting and analysis would the meaning be drawn out of the morphology of the sites countywide.

It is hoped that the project and the analysis presented in the following chapters, has achieved enough to unlock at least part of the enormous potential revealed by the aerial reconnaissance campaigns of all those archaeologists who have flown in the county over the last 50 years or more.





**Reconnaissance update  
January 2006**

NCC aerial reconnaissance ended in 2002 and EH's own programme of flying has responded to different priorities and a general paucity of cropmarks caused by wet

weather at key stages in the crop growing season, not just in Northamptonshire (D Grady pers comm). EH aerial reconnaissance has contributed to a number of national and regional surveys and has targeted the Cold War architecture at the Thor missile site at Harrington and

supported the Northamptonshire Shoe and Boot Project with a record of the workshop and factory complexes in Northampton, Kettering and Wellingborough. The county was also part of a pilot for the Scheduled Monuments at Risk project, which aimed to assess all the

scheduled monuments in the East Midlands and discover which sites were under the highest risk from damage caused by ploughing, animal burrows, excessive scrub and so forth. Future aerial reconnaissance will be guided by this report on the results of the NMP.