43.   An even more sophisticated approach would be to have full text
input into the main computer and indexers would then only scan and select
appropriate descriptive information. This, however, suffers from a high
initial and ongoing operating expenditure, as well as complete system
shut-down if the main computer fails. The latter could, to some extent, be
circumvented with innovative use of intelligent terminals.

Storage

44.   The exact method of storing descriptive information is highly
dependent on the volume of information being retained, the size of description
to be retained, the depth of indexing, the speed of retrieval required, the
type of equipment selected, and the budgetary resources available.

45.   As this is a highly technical area, it suffices to say that once
a more definitive picture of needs is developed, appropriate storage con-
figurations can be selected for the information itself as well as the
descriptors.

Retrieval

46.   The method of retrieval is very closely related to the storage
configurations put in place. It is most probable that searching for informa-
tion based on the descriptors will be carried out by means of a terminal
connected to a central computer. Once a list of relevant document numbers is
obtained the documents themselves could be retrieved in a different manner,
depending on the full text storage technique employed.

47.   Descriptor queries can be carried out virtually instantaneously
by direct searcher-computer interaction, or a batch approach could be used
whereby a query is posed via a terminal but is then placed in a queue on the
computer. The speed of response would depend on the priority, assigned by
the searcher. It is quite conceivable that both techniques would be avail-
able to be utilized as the situation requires.

48.   The key feature to **consider** in a retrieval system is not the hard-
ware aspects of the storage techniques but the selection criteria. There are
basically two selection techniques in common use:

  i) The exact match-approach allows the query to be posed as a logical
      Boolean expression and selects from the data base only those documents
      which exactly satisfy the expression.

 ii) The occurrence approach develops a matrix with query keywords along
      one axis and document references containing any of these keywords along
      the top. The searcher then chooses the most pertinent references. One
      major advantage of this approach is that not all query terms need
      appear in a particular document in order for it to be cited. It is
      left up to the searcher to decide whether or not to look up the full text.

49.   Modifications to both systems such as assigning weighting factors
to keywords representing a document or providing the capability to indicate
word pair relationships are used to provide some means of measuring the relevancy
of the document to the terms selected . In some full-text systems, such