# Locating Aerospace Technical Reports: the AERADE Reports Archive





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www.cranfield.ac.uk

## Cranfield

## Cranfield University & Aerospace Technical Reports

- Cranfield has a nationally / internationally important collection
- Reports series from leading research establishments and organisations
- Important historical series such NACA, ARC, RAE
- Reports Section in the Barrington Library, Shrivenham Campus
- Research Projects including AIM-UK; AIM-EU; MAGiC I & II; COUGAR
- AERADE



## Information Needs of Engineers

- Task orientated / problem solving
- Project start information intensive / use of external sources to diminish uncertainty & define possible solutions
- Development / testing information use becomes more "introspective", includes "validated" sources such as standards, ESDU.
- Information has to be accessible, easily understood and can be translated into solutions
- Preference for personal / informal sources which are knowledge rich

## Technical Reports as Grey Literature



- Technical Reports document activities at various stages of a research project.
- Some are produced by national and international public bodies; others are confidential, protected, or disseminated to a restricted readership
- Part of a wider family of information sources commonly known Grey Literature (GL). GreyNet maintains an <u>online listing</u> of document types.



### **Definitions of Grey Literature**

"Grey literature stands for manifold **document** types produced on all levels of government, academics, business and industry in print and electronic formats that are protected by **intellectual property rights**, of **sufficient quality** to be collected and preserved by **library holdings or institutional repositories**, but not controlled by commercial publishers i.e., where publishing is not the primary activity of the producing body."

(Prague Definition 2010)

## The Importance of Technical Reports to Engineers



- Primary means of communication for engineers
- Timeliness produced months / years ahead of conference papers & journal articles
- Depth of information experimental detail, data, results (sometimes including failures), conclusions and recommendations
- Contain information which is not published elsewhere

## Why Are Technical Reports Hard to Reach?



- Discovery
  - Metadata / Bibliographic control
  - Reports as series
- Access
  - Commercial sensitivity
  - Classification / De-classification
  - Rationalisation of print collections
- E-access & preservation



## What's Being Done?

- The <u>Pisa Declaration on Policy Development for Grey Literature</u> Resources was ratified and published on 16<sup>th</sup> May 2014
- New opportunities & threats?
  - The development of institutional / subject repositories
  - "Disintermediation" the "fading role" of LIS professional in the STI value chain
  - Big Data / access to datasets will transform or marginalise literature in STI communication



## How Can You Discover Reports?

- Cranfield Library Catalogue coming to COPAC soon
- Current reports
  - NTRS (NASA Technical Reports Server)
  - <u>DTIC</u> (Defense Technical Information Center)
  - FAA Technical Library Catalog (Federal Aviation Administration)
  - <u>CAMI</u> (FAA Aerospace Medicine Technical Reports)
  - STO (NATO Science & Technology Organization)
- Historical
  - COA Reports (College of Aeronautics, Cranfield)
  - AERADE Reports Archive

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## Where Are UK Government Aerospace Reports?

#### COUGAR (Collation of UK Government Aeronautical Research Reports)

- Aims to bring together details and location of c.40,000 reports issued by UK Government Aeronautical Research Establishments
- Led by FAST (Farnborough Air Sciences Trust) with input from DSTL, TNA,
  Cambridge and Cranfield
- Aspires to provide online access to a full-text collection, but....
  - Incomplete metadata
  - Classification / de-classification
  - Copyright



### AERADE III Demo

#### AERADE III will offer the following improvements:

- Additional content consisting of some 240 ARC reports and 30,000 NACA reports
- Dspace platform has active developer community for support
- Easier maintenance
- Better curation
- Better searchability and discoverability
- OAI-PMH interface
- RESTful API (enables display on web apps or other systems)
- Handles giving persistent identifiers

#### **AERADE Reports Archive**

The Aerade Reports Archive incorporates more than ten thousand, historically significant, digitised reports from: The Aeronautical Research Council (ARC) - the principal agency in Great Britain with a major output of reports on matters aeronautical, which existed from 1909-1979, and published reports until 1980. The National Advisory Committee for Aeronautics (NACA) - chartered in 1915 and operational from 1917-1958. The National Aeronautics and Space Act of 1958 created NASA from NACA

#### Communities in AERADE

Select a community to browse its collections.

Aeronautical Research Council [2780]

#### Recently Added

#### test title

Smith, Arthur A (2012-05-22) abstract

#### The Interference of a Wind Tunnel on a Symmetrical Body

Lock, C. N. H. (1929-10)

The effect of the boundaries of a wind tunnel on the flow in the neighbourhood of a symmetrical body (i.e. (a) in two dimensions, a cylinder having a plane of symmetry parallel to the axis of the tunnel: (b) in three ...

#### The Interference on the Characteristics of an Aerofoil in a Wind Tunnel of Rectangular Section. Glauert, H. (1932-02-20)

Approximate formulae for the interference on an aerofoil in a rectangular wind tunnel have been known and used for several years. More accurate formulae have been developed by Terazawa and Rosenhead, but their results are ...

#### Report of the Advisory Committee for Aeronautics for the Year 1912-13

Unknown author (His Majesty's Stationery Office, 1913)

#### Report of the Advisory Committee for Aeronautics for the Year 1911-12

Unknown author (His Majesty's Stationery Office, 1912)

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2000 - 2012 (1) 1910 - 1999 (2779)

#### **RSS Feeds**

**RSS 1.0** 

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## **Guiding Principles**

Development being guided by the principles of the Pisa Declaration:

- Document focus on aerospace technical reports
- Quality assured by the authority of the originators
- Licencing investigating copyright / re-use permissions for RAE reports
- Collection management item and report series level metadata
- Open access subject repository persistent identifiers and open metadata standards for grey literature

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### Questions (for me and you)?

- How important is it for us to provide our customers with access to technical reports and other types of grey literature?
- Should we just be concerned about current reports, or are historical series still important?
- How much time do you / we spend currently on teaching and supporting our customers to use technical reports?
- Is there anything we can do to address some of the challenges, and if so what?