

R. V. Jones and the Birth of Scientific Intelligence

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I certify that all material in this thesis which is not my own has been identified accordingly, and that no material has previously been submitted and approved for the award of degree by any university.

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Abstract

The history of scientific intelligence – its birth, its importance during the Second World War, and its unique wartime qualities – has relied almost entirely on the memories of its pioneer, R. V. Jones. This thesis constitutes a critique of this history; through scrutiny of Jones's post-war literature (especially his war memoirs entitled *Most Secret War*), his archival papers and those of his colleagues and contemporaries, and other mediums he used to promote his account of scientific intelligence. This thesis examines chronologically all of the key events Jones became famous for – the Battle of the Beams, the Bruneval Raid, the Radio War, the Battle of the V-Weapons – and compares Jones's account of these (and many other) events with contemporary documentation. This thesis provides a rich understanding of the internal machinations within the British wartime air scientific intelligence organisation defined as ADI (Science), and their relationships with the many other political, military and intelligence sections that pursued similar and often closely-linked quests. This thesis importantly connects science and technology with the collection and collation of intelligence, is an analysis of wartime intelligence of a scientific and technical nature, and argues that scientific intelligence was much more than one man's accomplishments, involved many more individuals and organisations than is perceived, and is much more important to twentieth century history than has been permitted.

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Glossary

- AA** – Anti-Aircraft (also referred to as ‘ack-ack’)
- ACAS(I)** – Assistant Chief of Air Staff (Intelligence)
- ACAS(R)** – Assistant Chief of Air Staff (Research)
- ADRDE** – Air Defence Research & Development Establishment
- ADI** – Assistant Director of Intelligence
- ADI (Science)** – Assistant Directorate of Intelligence (Science)
- ADGB** – Air Defence of Great Britain
- ADRC** – CID’s Sub-Committee on Air Defence Research
- AEF** – Allied Expeditionary Force
- AEAF** – Allied Expeditionary Auxiliary Force
- AHB** – Air Historical Branch
- AI** – Air Interception
- AMES** - Air Ministry Experimental Stations
- AMRE** – Air Ministry Research Establishment
- APIS** - Army Photographic Interpretation Service
- ARL** – Admiralty Research Laboratory
- ASV** – Air-to-Surface Vessel
-
- BADU** – Blind Approach Development Unit
- BAFO** – British Air Force of Occupation
- BIOS** – British Intelligence Objectives Sub-Committee
- BMP** – Tactical Signals Intelligence Reports
-
- CH** – Chain Home
- C-in-C** – Commander in Chief
- CIA** – Central Intelligence Agency
- CID** – Committee for Imperial Defence
- CIU** – Central Interpretation Unit (Medmenham)
- CND** - *Confrérie de Notre-Dame*
- CombinedOps** – Combined Operations

COS – Chief of Staff/Chiefs of Staff
CSA – Chief Scientific Adviser
CSDIC – Combined Services Detailed Interrogation Centre
CSSAD – Committee for the Scientific Survey of Aerial Defence
CSSAO – Committee for the Scientific Survey for Air Offensive
CSSAW – Committee for the Scientific Survey of Air Warfare

DCAS – Deputy Chief of Air Staff
DDI – Deputy Director of Intelligence
DDI2 – Deputy Director of Technical Intelligence
DDI3 – Deputy Director of Operational and Organisational Intelligence
DDI4 – Deputy Director of Low Grade Signals Intelligence
DDR – Deputy Director of Research
DDSY – Deputy Director of Signals (Y), later defined as DDI4
D/F – Direction-Finding
DI(O) – Director of Intelligence (Operations)
DI(R) – Director of Intelligence (Research)
DI(S) – Director of Intelligence (Security)
DNI – Director of Naval Intelligence
DSIR – Department of Scientific and Industrial Research
DSR – Director of Scientific Research
DT – *Dezimeter Telegraphie* (German Radar)

EEC – English Electric Company
ELINT – Electronic Intelligence

F/Lt – Flight Lieutenant
FMG – *Flakmessgerät*
F/O – Flight Officer
FuGe – *Funk-Gerät*
FZG – *Flakzielgerät*

GAF – German Air Force
GASER – German Air Signals Experimental Regiment

GC&CS – Government Code and Cypher School

GCI – Ground Control Interception

GEC – General Electric Company

GPO – General Post Office

Gr/Cpt – Group Captain

HDU – Home Defence Units

HF – High Frequency

HDP – *Hochdruckpumpe (V3)*

HUMINT – Human Intelligence

HWA – German Army Ordnance Office

IFF – Identification: Friend or Foe

IIC – Industrial Intelligence Centre

ISK – Illicit Signals Knox

ISOS – Illicit Signals Oliver Strachey

JIC – Joint Intelligence Committee

KG - *Kampf Geschwader*

KGr - *Kampf Gruppe*

MAAF – Mediterranean Allied Air Force

MAP – Ministry of Aircraft Production

Mc/sec - Megacycles per second

MEW – Ministry of Economic Warfare

MHz – MegaHertz

MOD – Ministry of Defence

MOI – Ministry of Information

MOS – Ministry of Supply

MTB – Motor Torpedo Boat

NIB – Noise Investigation Bureau

NIC – Night Interception Committee

NID – Naval Intelligence Division

NPL – National Physics Laboratory

OIC – Operational Intelligence Centre

OPINT – Open Source Intelligence

OR – Operational Research

ORS – Operational Research Section

OSRD – Office of Scientific Research and Development

OSS – Office of Strategic Services

PCO – Passport Control Officer

PE – Photo-Electric

PI – Photographic Interpretation

PIU – Photographic Interpretation Unit

POW – Prisoner of War

PPI – Plan Position Indicator

PR – Photographic Reconnaissance

PRU – Photographic Reconnaissance Unit

PWE – Political Warfare Executive

RADAR – Radio Detection And Ranging

RAE – Royal Aircraft Establishment

RAF – Royal Air Force

RAFDEL – Royal Air Force Delegation

RCA - Radio Corporation of America

RCM – Radio Countermeasures

RDF – Radio Direction-Finding

REME – Regiment of Electrical and Mechanical Engineers

RE8 - Ministry of Home Security's Research and Experiments Department

RRE – Royal Radar Establishment

RSS – Radio Security Service

R/T – Radio Telegraphy

RUSI - Royal United Services Institution

SAM – Surface-to-air guided-missiles
SAS – Special Air Services
SBS – Special Boat Services
SHAEF – Supreme Headquarters of the Allied Expeditionary Forces
SIGINT – Signals Intelligence
SIR – Air Scientific Intelligence Report
SIS – Secret Intelligence Services
SLU – Special Liaison Units
SOE – Special Operations Executive
Sq/Ldr – Squadron Leader
STI – Scientific and Technical Intelligence
STC – Standard Telephone & Cables

TECHINT – Technical Intelligence
T-Force – Target Force
TRE – Telecommunications Research Establishment

USAF – United States Air Force

VHF - Very High Frequency

WAAF – Women’s Auxiliary Air Force
W/Cdr – Wing Commander
W/T – Wireless Telegraphy

Y-Service – low-grade signals intelligence organisation
Y-Station – Technical Military Listening Post