

The Spoils of War – Australia's Use of German WW2 Technology to Develop One of the World's First Anti-Tank Guided Weapon Systems

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Principle Engineer
QinetiQ

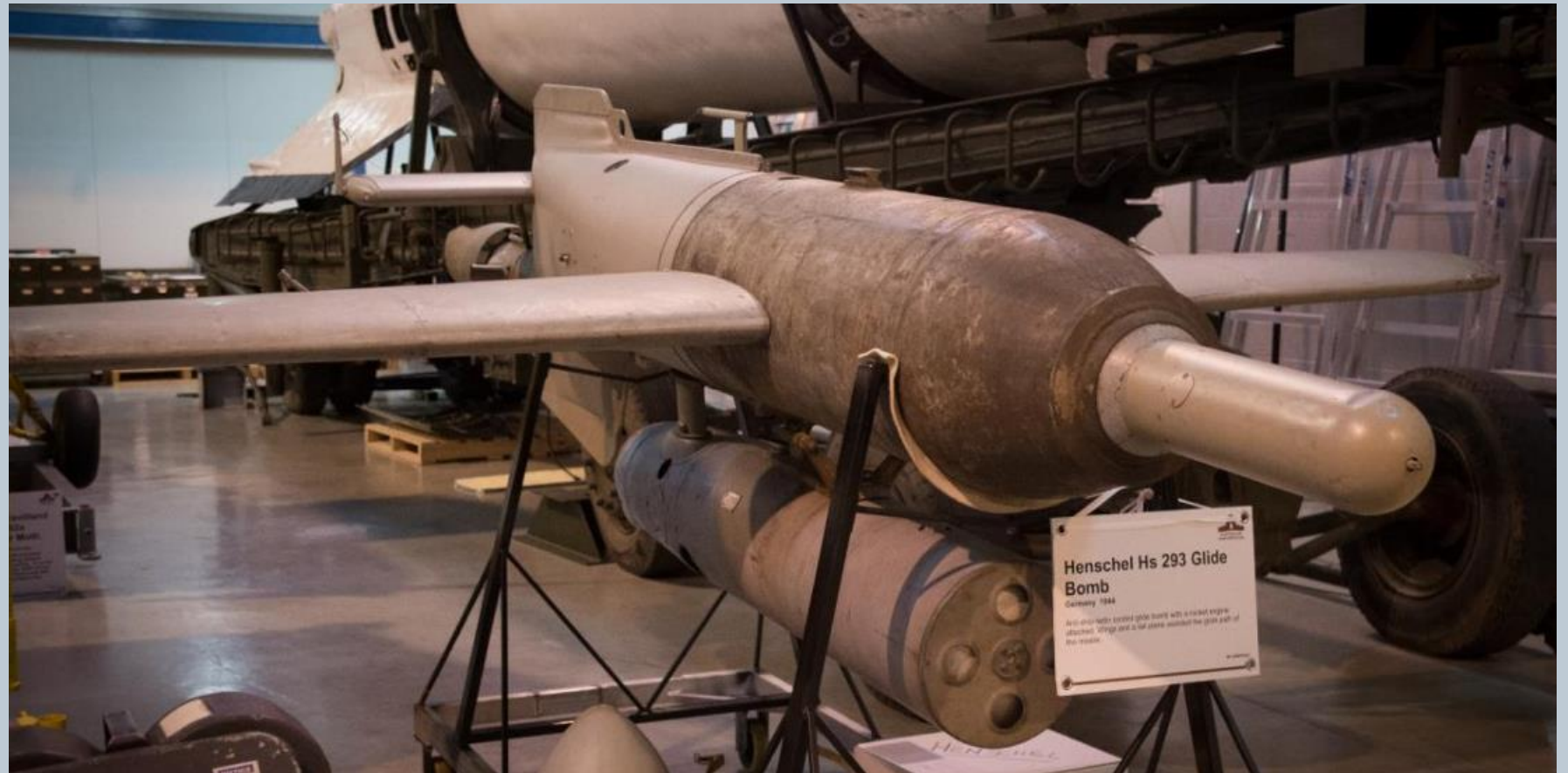


Image: Author

It Is Rocket Science!

Guided Weapons And Rockets – The Australian Experience



Image: DSTG

AWM Collection of German WW2 Guided Weapons



V1



A4 (V2)

Images: Author

V2 – Adelaide February 1948



AWM Collection of German WW2 Guided Weapons (Cont)



Hs 293



Enzian

Images: Author

AWM Collection of German WW2 Guided Weapons (Cont)



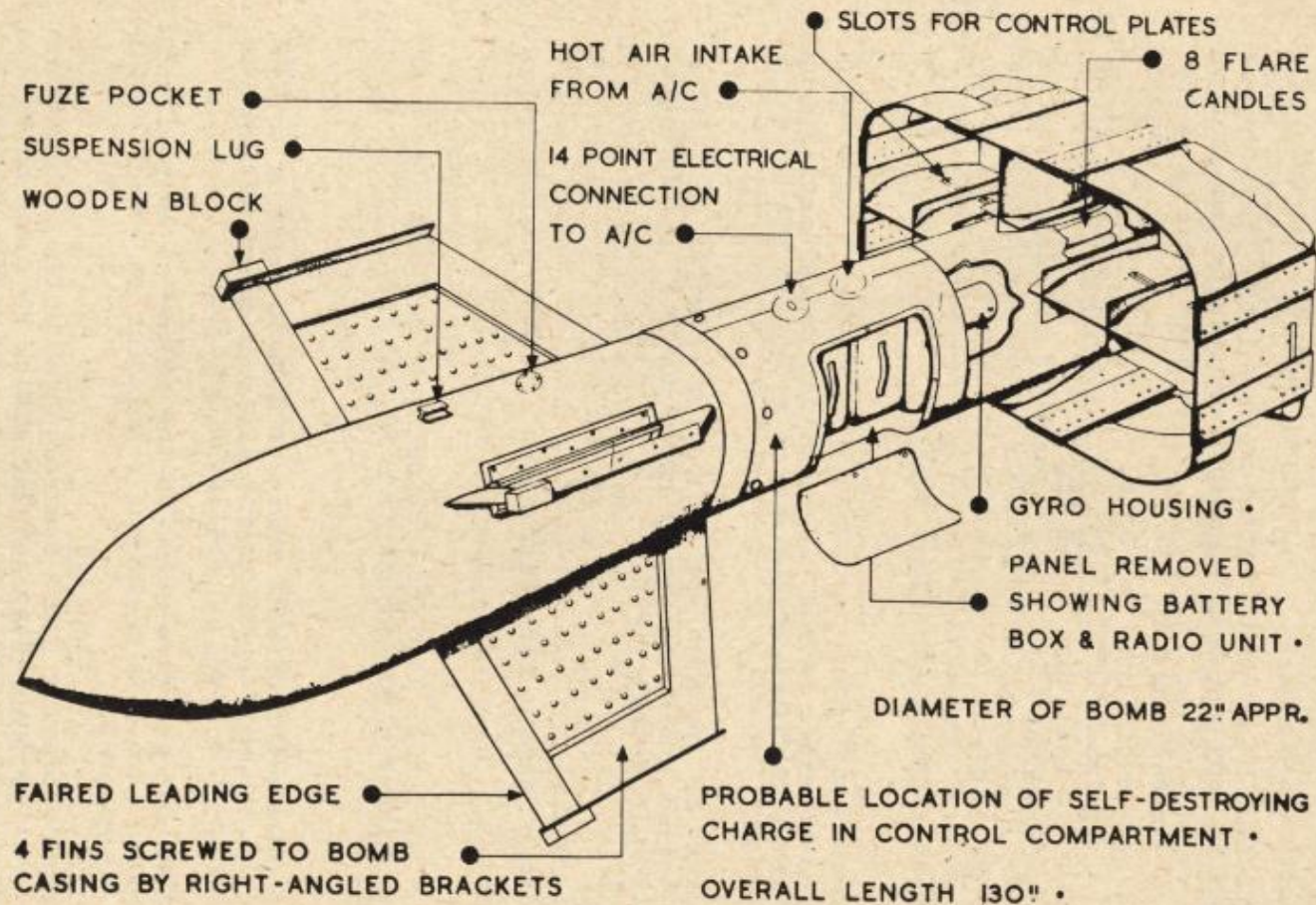
Fritz X

Image: USAF

'Aerial Target'
Royal Aircraft Factory
c. 1915



Fritz X



F.X.
RADIO-CONTROLLED ARMOUR-PIERCING BOMB ••• (P.C.1400 F.X.)

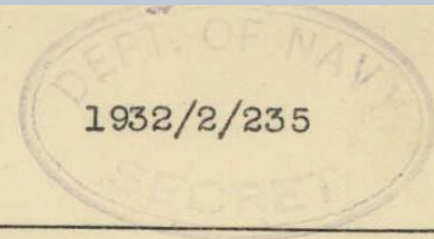
BASIC DRAWING SUPPLIED BY A12g AIR MINISTRY DRAWING NO A12g B.G.36 11/43

Drawing of PC 1400 FX Bomb

Image : NAA

DEPARTMENT OF THE NAVY
MINUTE PAPER

1932/2/235



1441/45.

de-2 SUBJECT: REPORT ON OPERATION BACKFIRE.

29/1/47
D.C.N.S.

2/12
D.O.T.M.

30 JAN 1947

L. J. T. M.

[2]

The attached report covers in detail an operation which was in effect the employment of British, U.S., and German Technicians, for assembly, and firing of A4 German Rockets, at CUXHAVEN.

2. The report is divided into 5 volumes..

- (a) Vol. 1. General preamble : organisation, source of equipment, personnel, assembly and conclusion.
- (b) Vol. 2. Technical report covering Production and Assembly.
- (c) Vol. 3. Field Procedure.
- (d) Vol. 4. Description of Equipments and Special Vehicles.
- (e) Vol. 5. Recording and Analysis of the Trajectory.

*Destroyed
for 19/2/59*

Image : NAA

26D
Evaluation Report 53(a)
18 June 1945

COMBINED INTELLIGENCE OBJECTIVES SUB-COMMITTEE

INTERROGATION OF ALBERT SPEER, FORMER
REICH MINISTER OF ARMAMENTS AND WAR
PRODUCTION.

Target No. 28/5.01

2nd Session - May 28, 1945 - 15:00-18:00 hrs.

RESEARCH, DEVELOPMENT

1. SPEER is firmly of the opinion that the right of deciding what to develop belongs to those responsible for tactics, i.e. the General Staff. But the German G.S. contained on representatives of industry--they were all officers and had no idea of the inter-relation of requirements and production. For example he quoted the case of their demand for 15 cm and 21 cm flak; this happened before SPEER's time and the industry was only in a position to produce a few heavy field guns of 17 cm and 21 cm per month, and a similarly low flak output would have been quite useless when distributed over all the areas in need of A/A defence.

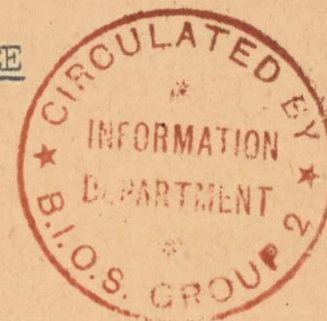
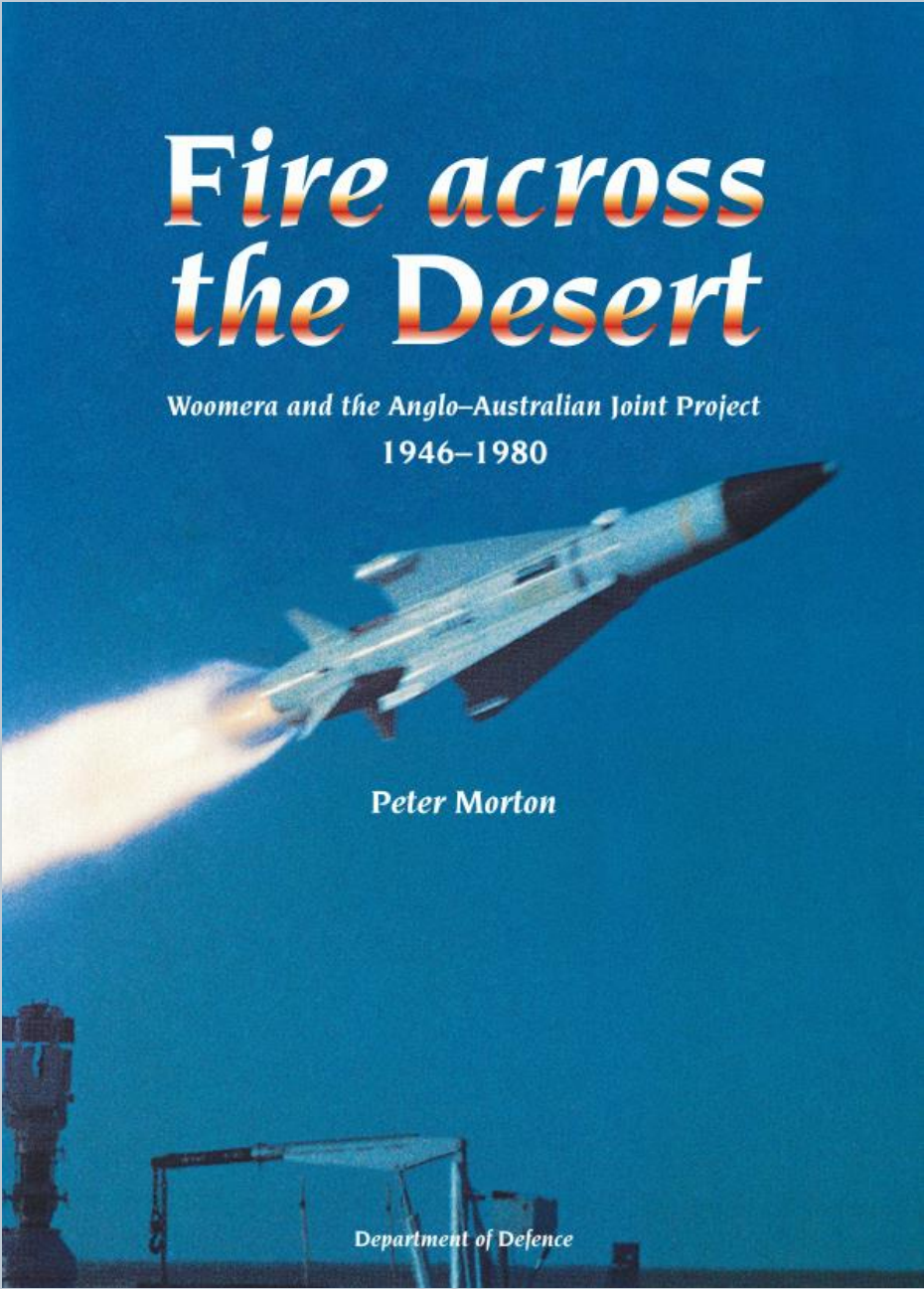


Image :
NAA

Australian Commitment to the Anglo-Australian Joint Project



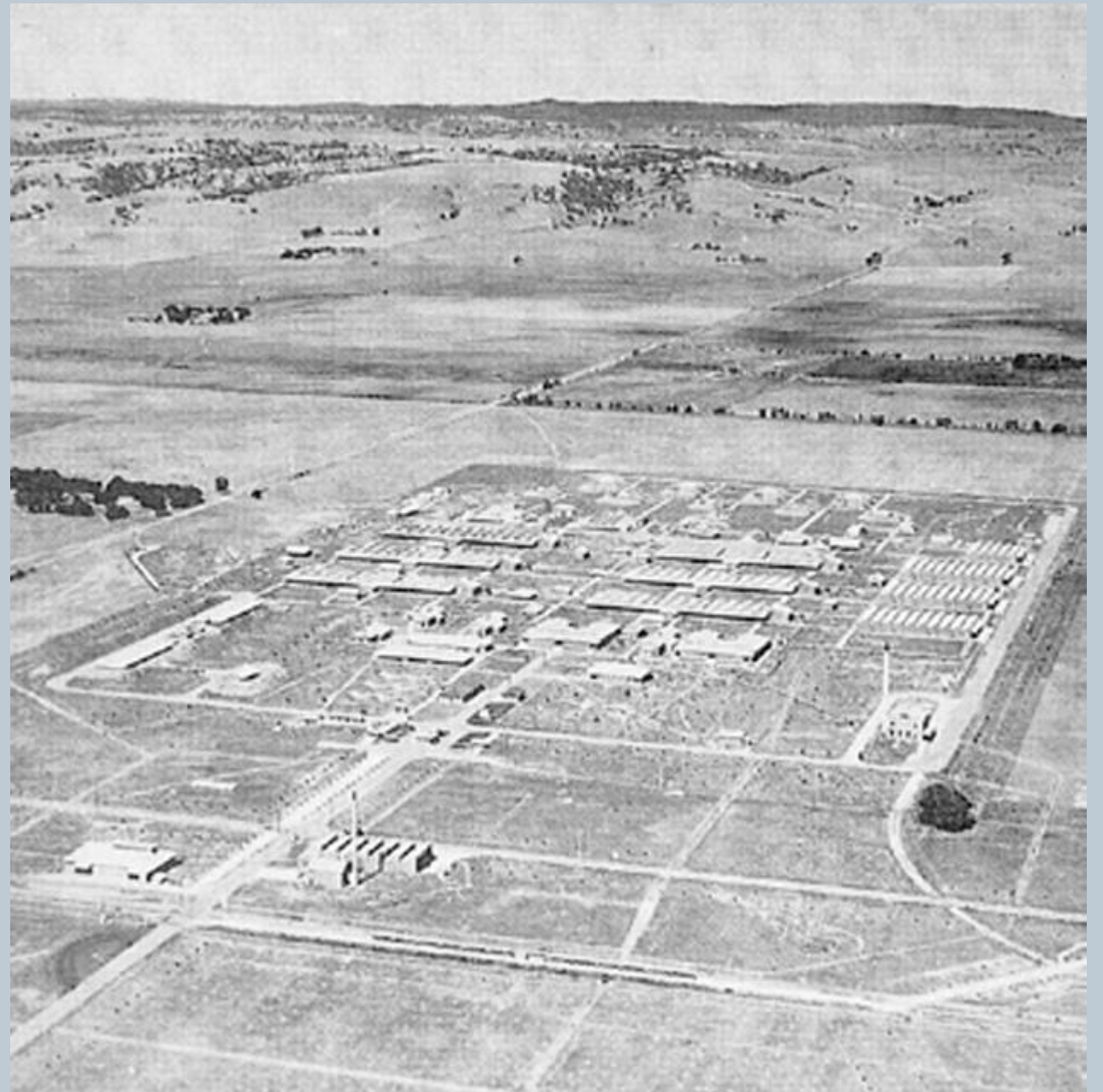
Image: FATD, DST



Exploitation

How did these guided weapons come to Australia and how did the technical exploitation of them contributed to the post war development of GW in Australia?

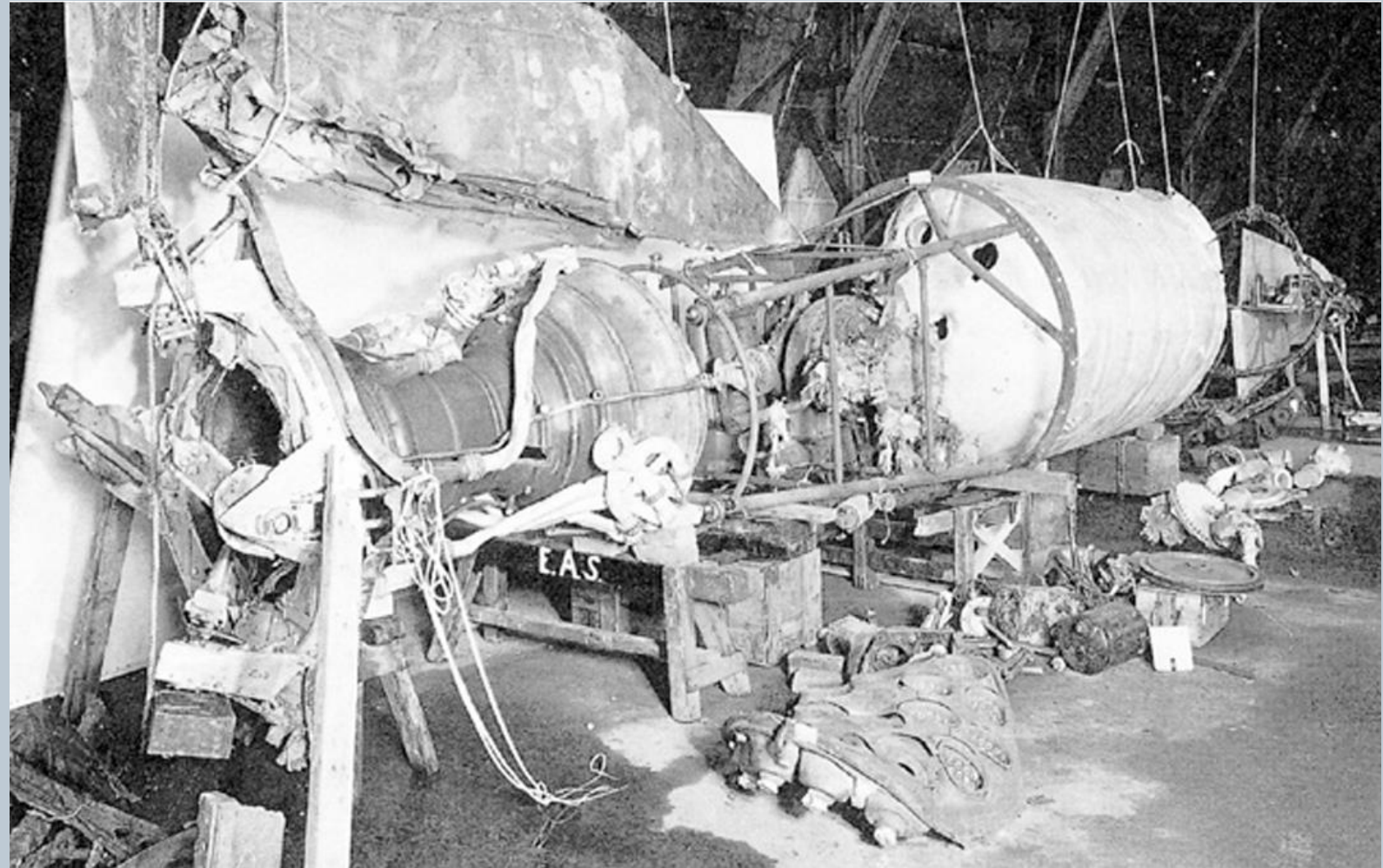
Image: FATD, DST



Exploitation

A V2 reconstructed from wreckage at Farnborough, 1945

Image: FATD, DST



Project 'E'

- Commenced: 1950
- Guidance link: Wire
- Range: 1400 m
- Mass: unknown
- Planned Warhead: 7 kg

German Technologies

Adopted:

- Shaped charge warhead
- Wire guidance link
- Operator command guidance
- Valve actuated aerodynamic operation of wing servos

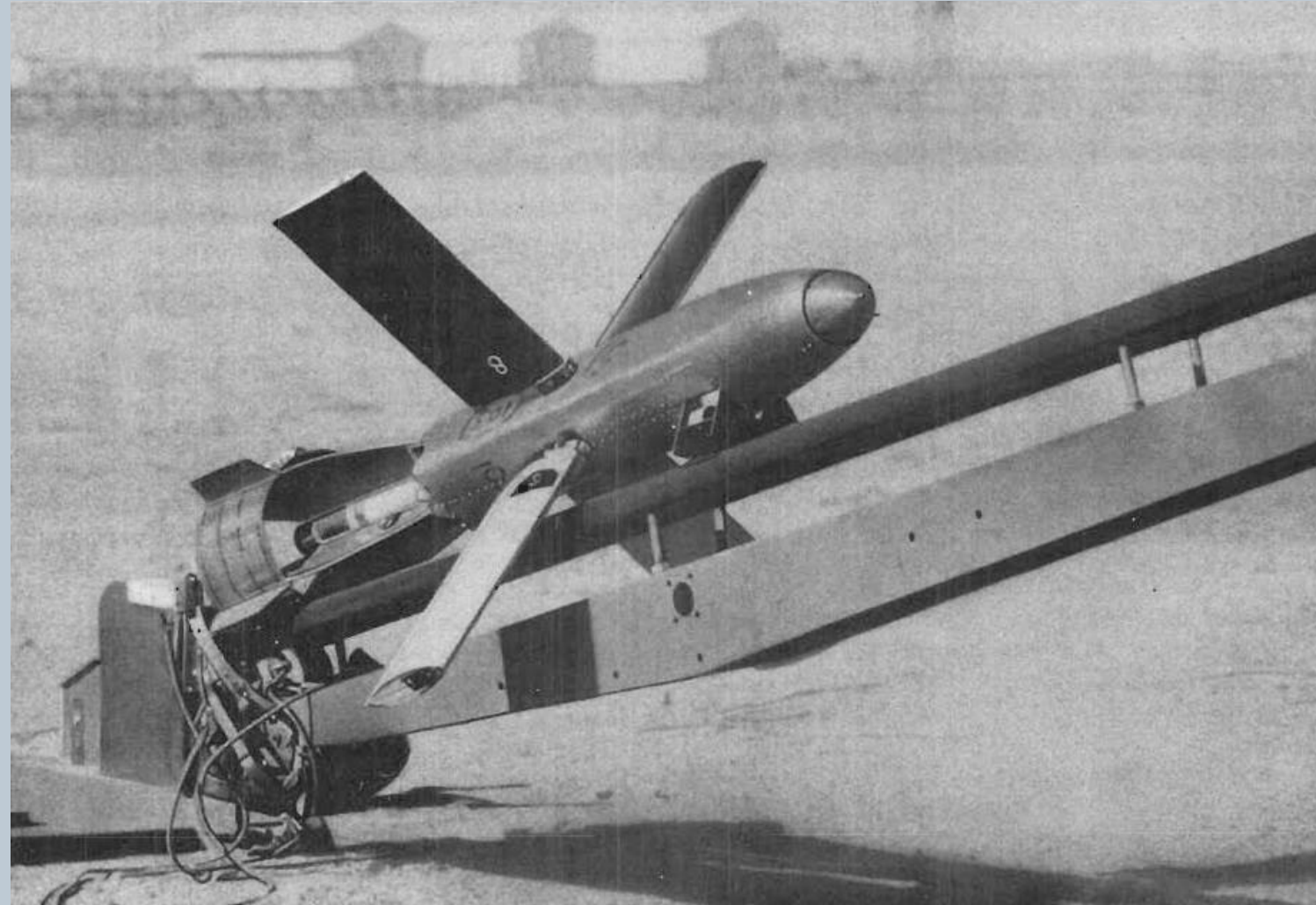


Image :
NAA

Dr J.R. Green

ARL, Melbourne, later of
HSAL at Salisbury

The German X-4 and X-7
weapons had provided
Green with many of the
initial design ideas

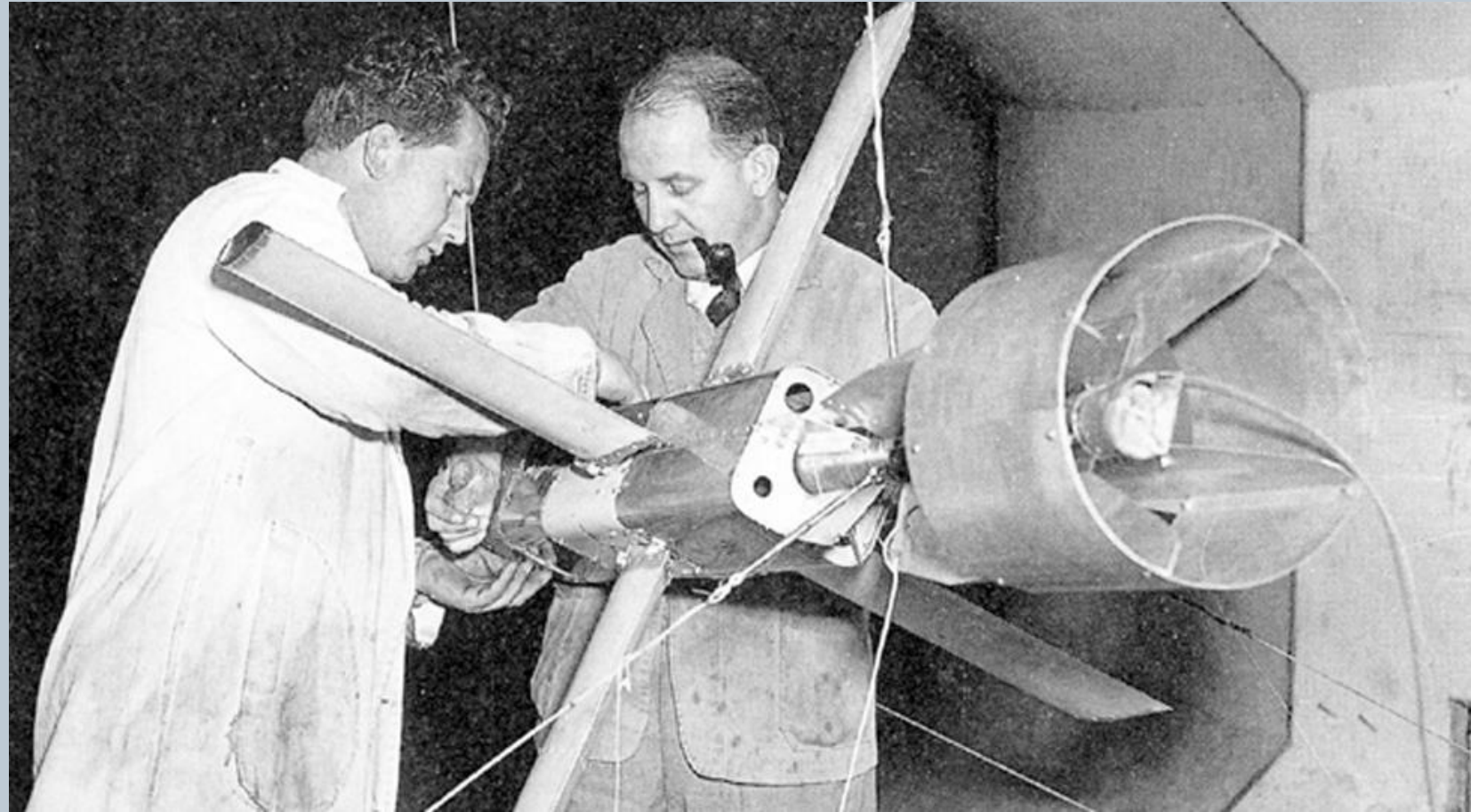
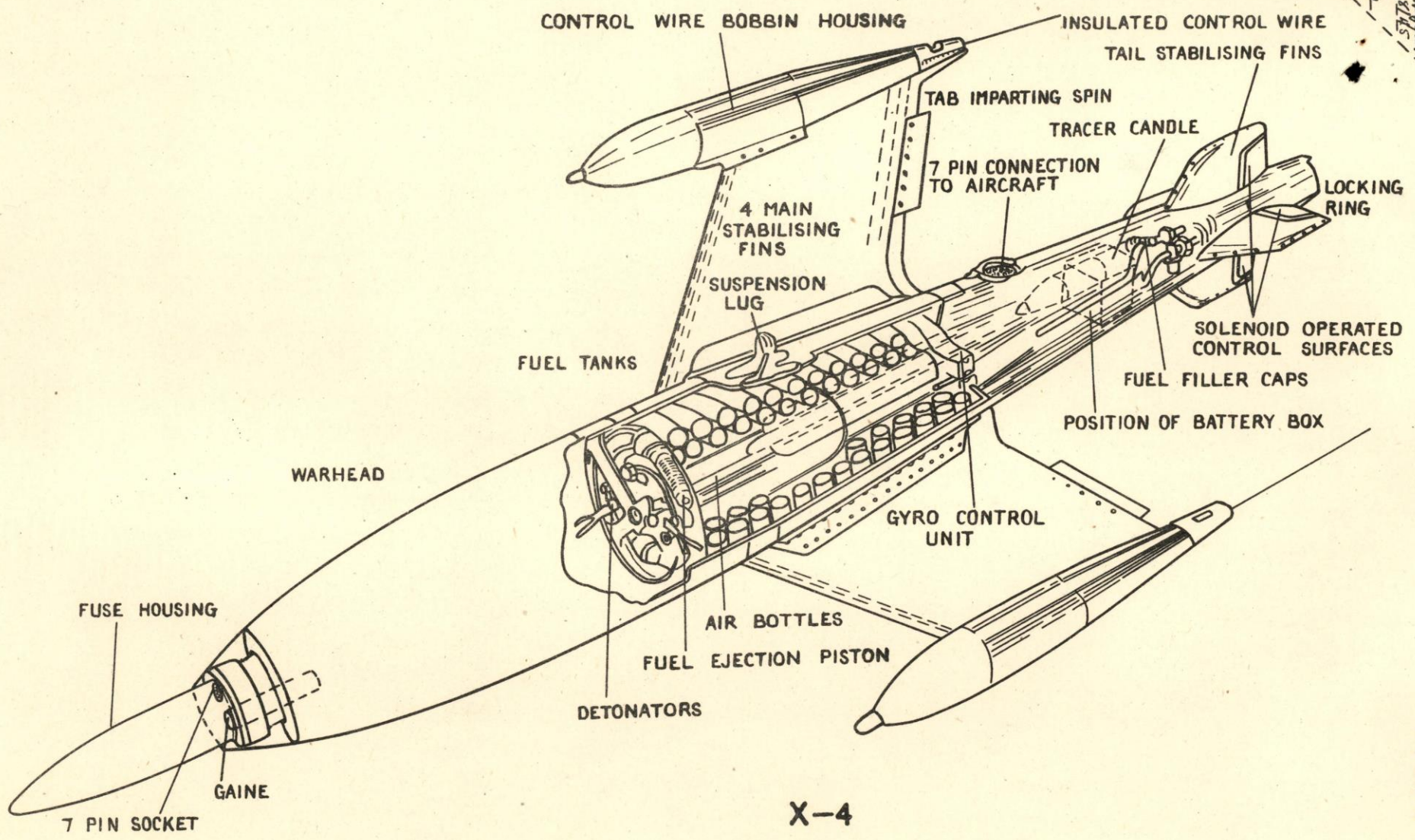


Image: FATD, DST

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DR. P. N.
TR. 91/21/15
APP. 8



AERO REPORT 2071
FIG. 3

Project 'E' Trials at Woomera

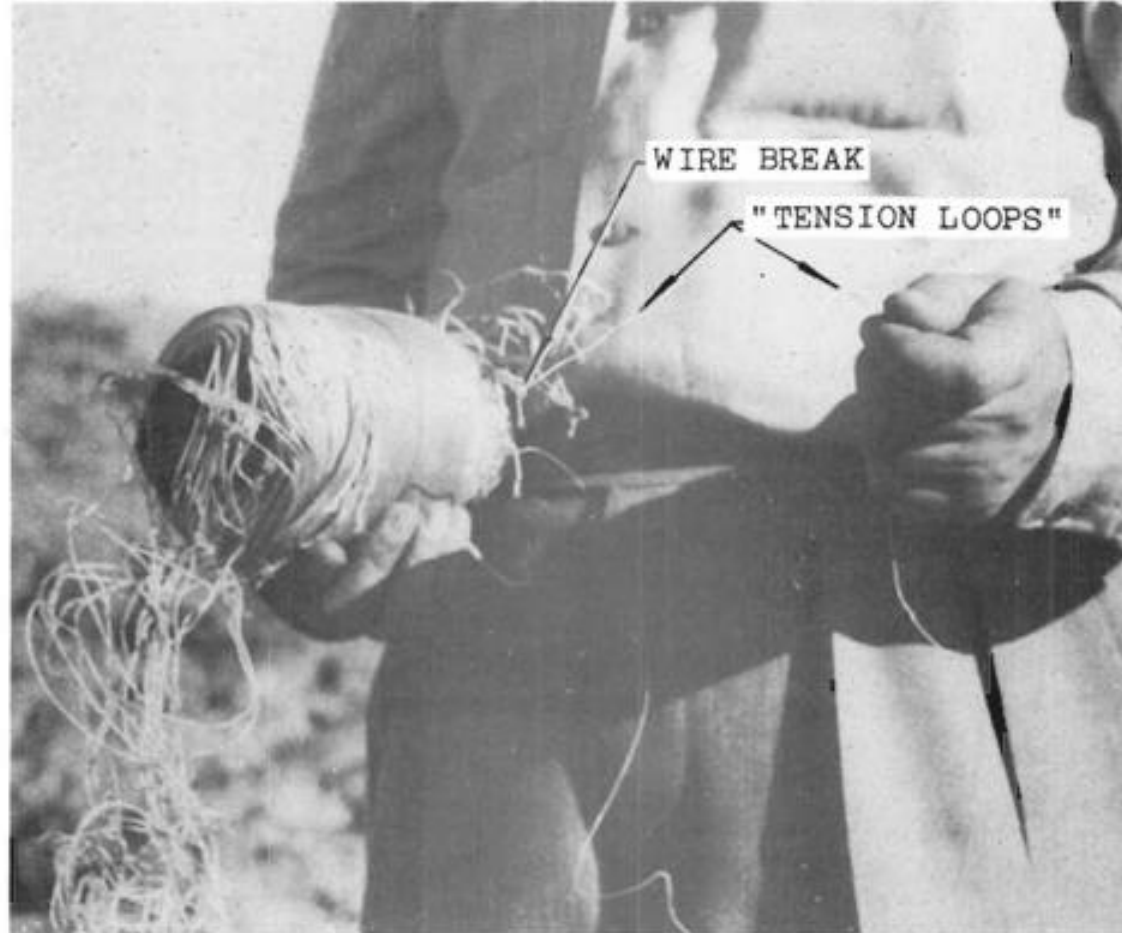


FIGURE 3. SPOOL TAKEN FROM ROUND SHOWING WIRE BREAK
AND "TENSION LOOPS" IN WIRE.

Image: FATD, DST

Project E Trial, Woomera

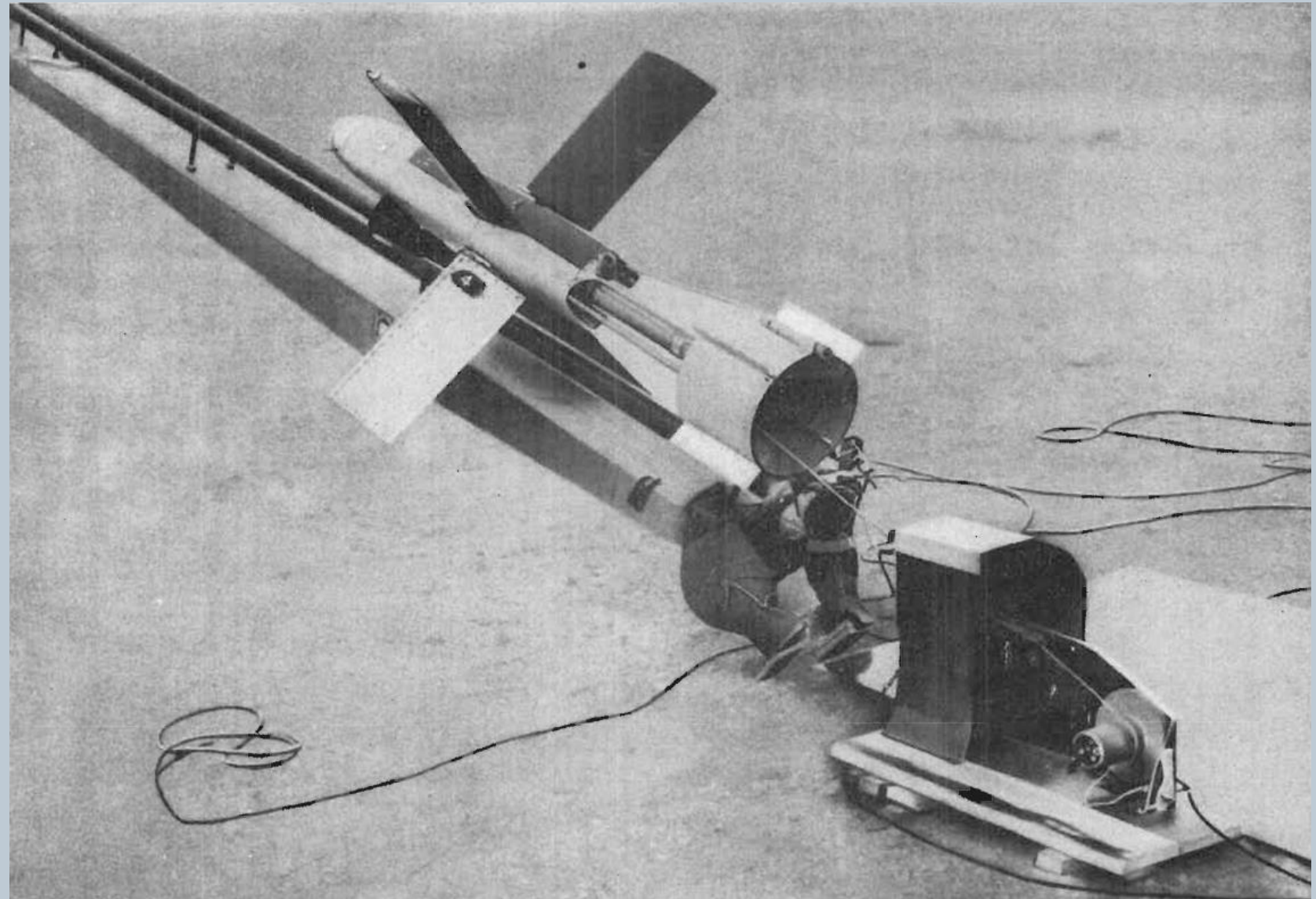


Image : NAA

UNCLASSIFIED
SECRET

AERONAUTICAL RESEARCH LABORATORIES

HIGH SPEED AERODYNAMICS DIVISION

TECHNICAL NOTE NO. H.S.A.2

DECEMBER, 1951

Copy No...1.0

SOME POSSIBLE ROLES

for

SHORT RANGE WIRE CONTROLLED

GUIDED MISSILES

By

J.R. Green, D.Phil(Oxon), B.E., A.F.R.Ae.S., A.M.I.E.Aust.

Image :
NAA

Summary

- Australia had (nearly) full access to Allied information on German guided weapons during and immediately after WW2
- Australian military staff and Defence scientists were able to examine captured equipment in the UK and discuss technologies with leading UK scientists
- The development of the Anglo-Australian Joint Project from 1946 allowed even greater access to materiel and knowledge
- Through the Joint Project, Australia developed world class manufacturing, assembly and trials facilities at Salisbury and Woomera. This led to the design and development of guided weapon systems wholly developed, tested and manufactured in Australia
- A history though of lost opportunity largely due to less than enthusiastic support from the Services and the constantly changing priorities of the Joint Project

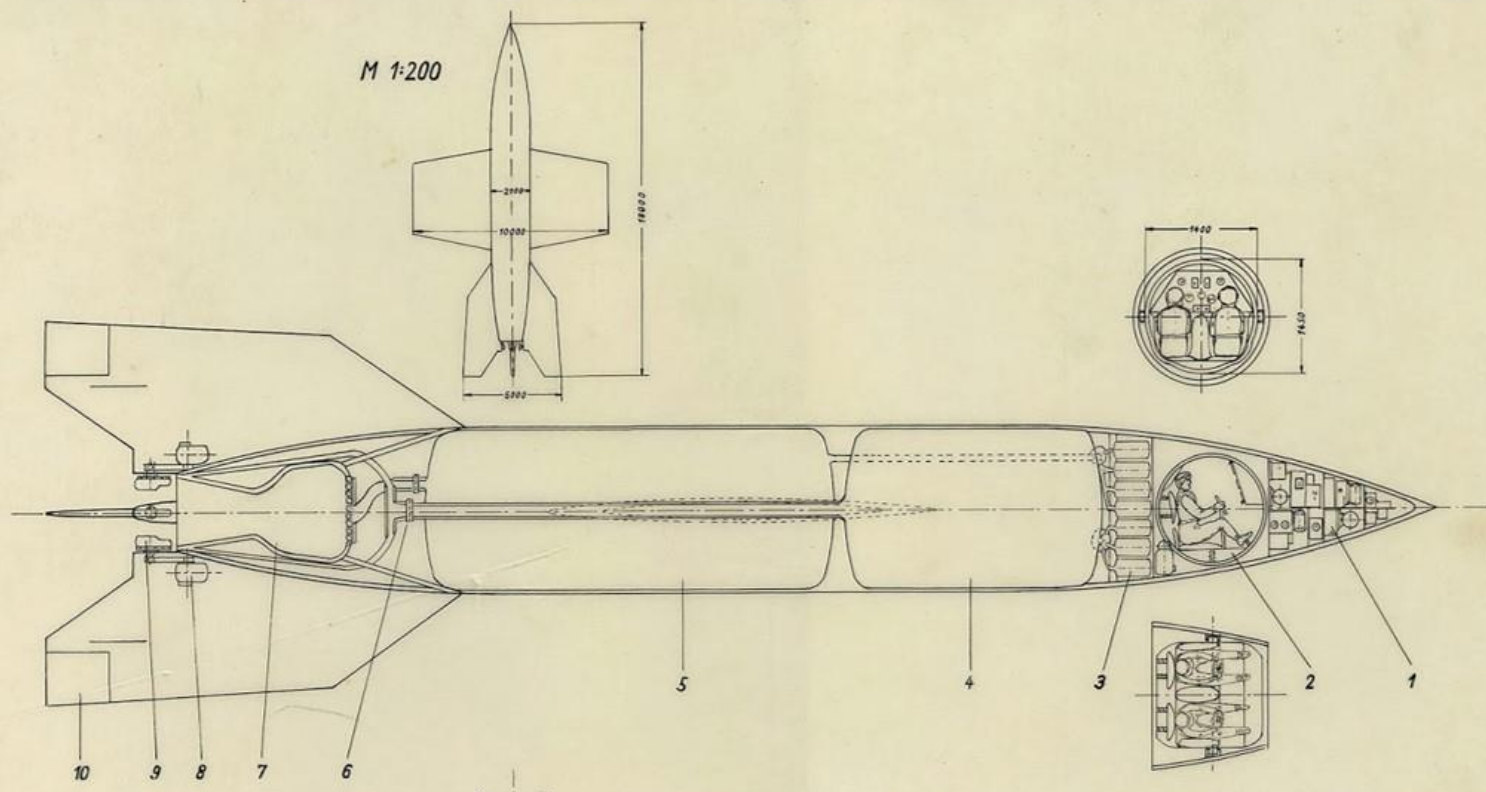
Questions?



Images: NAA

Brennan Torpedo 1877





M 1:200

		Datum	Name	Änderungen	
1	Fernsteuerung	02.08.45	Kuße		
2	Überdruckkammer	04.02.45	Kuße	Datum	Name
3	Pressluftsaugungsanlage	Massstab			
4	Benzolbehälter	1:50			
5	Salpetersäurebehälter				
6	Platzmembranrenfile				
7	Ofen				
8	Rudermaschinen				
9	Strahlruder				
10	Lufttruder				

A 9/II
[besetzt]
4
Rb. Nr. 3